

# **HIV NATIONAL STRATEGIC PLAN FOR THE UNITED STATES**

## **A Roadmap to End the HIV Epidemic 2021–2025**

DRAFT

**Acknowledgments:** The HIV National Strategic Plan (HIV Plan) was developed through a robust process that included gathering feedback from stakeholders across public health, health care, research, and related fields. Partners throughout the federal government, as well as input from hundreds of non-federal stakeholders including state, tribal, territorial, and local governments, researchers, health plans and providers, community groups, and national and local organizations that work in HIV and related fields, have helped shape the goals, objectives, and strategies in this plan. The Office of the Assistant Secretary for Health (OASH) and its Office of Infectious Disease and HIV/AIDS Policy (OIDP) of the U.S. Department of Health and Human Services (HHS) sincerely thank all those who contributed to making this HIV Plan a reality.

**Language used in the HIV Plan:** The HIV Plan values the lived experiences and choices of all people, regardless of age, sex, gender identity, sexual orientation, race, ethnicity, religion, disability, geographic location, or socioeconomic circumstance. To reflect this vision, a concerted effort was made to use inclusive and person-first language throughout the HIV Plan. Evidence-based, contemporary terminology is also used to convey respect and empowerment and to reduce stigma faced by communities and populations disproportionately impacted by HIV. Despite these efforts, specific terminology or language may be unintentionally offensive or stigmatizing to some individuals or populations. This approach is intended to reflect the HIV Plan’s vision for a collective, inclusive, and respectful national response.

Additional information regarding the HIV Plan and associated activities may be accessed at <https://www.hiv.gov/>

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## VISION

*The United States will be a place where new HIV infections are prevented, every person knows their status, and every person with HIV has high-quality care and treatment and lives free from stigma and discrimination.*

*This vision includes all people, regardless of age, sex, gender identity, sexual orientation, race, ethnicity, religion, disability, geographic location, or socioeconomic circumstance.*

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## EXECUTIVE SUMMARY

Building on lessons learned and progress made in the past 40 years, the United States now has the opportunity to end the HIV epidemic. This opportunity has been made possible by tireless advocacy, determined research, and dedicated delivery of diagnostic, prevention, care, treatment, and supportive services.

The National HIV/AIDS Strategy, first released in 2010 and updated in 2015, changed the way that Americans talk about HIV and the ways that stakeholders prioritize and coordinate resources and deliver prevention and care services that support people with HIV or at risk for HIV. As a result, the nation's new HIV infections have declined from their peak in the mid-1980s—although remaining stable over the past decade—and people with HIV in care and treatment are living longer, healthier lives. In 2018 the estimated number of new HIV infections was 36,400. A robust prevention toolbox that includes pre-exposure prophylaxis (PrEP), post-exposure prophylaxis (PEP), and syringe services programs (SSPs) has lowered a person's risk of acquiring HIV. Research in recent years has proven that people with HIV who take antiretroviral therapy achieve and maintain an undetectable viral load, not protect their health but also have effectively no risk of transmitting HIV through sex.

This stability in the annual number of new infections, though, has further illuminated opportunities for focused efforts. According to the most recent available data, less than one-half (38.9%) of the U.S. population have ever been tested for HIV<sup>1</sup> and an estimated 161,800 (14%) people with HIV are unaware of their status.<sup>2</sup> Only 63% of people diagnosed with HIV are virally suppressed.<sup>3</sup> Approximately 80% of new HIV infections are due to people who do not know they have HIV or are not receiving regular care,<sup>4</sup> and only 18% of the approximately 1.2 million people indicated for PrEP are receiving it.<sup>5,6</sup>

This HIV National Strategic Plan (HIV Plan), the nation's third consecutive national HIV strategy, sets forth bold targets for ending the HIV epidemic in the United States by 2030, including a 75% reduction in new HIV infections by 2025 and a 90% reduction by 2030. For stakeholders across the nation, the HIV Plan articulates goals, objectives, and strategies to prevent new infections, treat people with HIV to improve health outcomes, reduce HIV-related disparities, and better integrate and coordinate the efforts of all partners to achieve the bold targets for ending the HIV epidemic in the United States. The HIV Plan also establishes indicators to measure progress, with quantitative targets for each indicator, and designates priority populations and key areas of focus.

The HIV Plan and [\*Ending the HIV Epidemic: A Plan for America\*](#) (EHE) initiative are closely aligned and complementary, with EHE serving as a leading component of the work by the U.S. Department of Health and Human Services (HHS), in collaboration with local, state, and federal partners, to achieve the common goal. The EHE initiative is beginning in the jurisdictions now hardest hit by the epidemic. The HIV Plan covers the entire country, has a broader focus across federal departments and agencies beyond HHS and all sectors of society, and addresses the integration of several key components that are vital to our collective work, including stigma, discrimination, and social determinants of health.

The HIV Plan establishes the following vision:

*The United States will be a place where new HIV infections are prevented, every person knows their status, and every person with HIV has high-quality care and treatment and lives free from stigma and discrimination.*

*This vision includes all people, regardless of age, sex, gender identity, sexual orientation, race, ethnicity, religion, disability, geographic location, or socioeconomic circumstance.*

This vision is accompanied by four high-level goals, which frame the HIV Plan’s more specific objectives. Strategies are articulated for everyone—federal and nonfederal stakeholders alike— to participate in working to achieve the goals through integrated individual-, community-, and structural-level responses. The order of goals, objectives, and strategies does not indicate any prioritization, and many are intertwined. The four goals and associated objectives are as follows:

**Goal 1: Prevent New HIV Infections**

- 1.1 Increase awareness of HIV
- 1.2 Increase knowledge of HIV status
- 1.3 Expand and improve implementation of effective prevention interventions, including treatment as prevention, PrEP, PEP, and SSPs, and develop new options
- 1.4 Increase the capacity of health care delivery systems, public health, and the health workforce to prevent and diagnose HIV

**Goal 2: Improve HIV-Related Health Outcomes of People with HIV**

- 2.1 Link people to care immediately after diagnosis and provide low-barrier access to HIV treatment
- 2.2 Identify, engage, or reengage people with HIV who are not in care or not virally suppressed
- 2.3 Increase retention in care and adherence to HIV treatment to achieve and maintain long-term viral suppression
- 2.4 Increase the capacity of health care delivery systems, public health, and the health workforce to serve people with HIV

**Goal 3: Reduce HIV-Related Disparities and Health Inequities**

- 3.1 Reduce HIV-related stigma and discrimination
- 3.2 Reduce disparities in new HIV infections, in knowledge of status, and along the HIV care continuum
- 3.3 Engage, employ, and provide public leadership opportunities at all levels for people with and at risk for HIV
- 3.4 Address social determinants of health and co-occurring conditions that exacerbate HIV-related disparities

**Goal 4: Achieve Integrated, Coordinated Efforts That Address the HIV Epidemic among All Partners and Stakeholders**

- 4.1 Integrate programs to address the syndemic of HIV, sexually transmitted infections (STIs), viral hepatitis, and substance use and mental health disorders
- 4.2 Increase coordination of HIV programs across all levels of government (federal, state, tribal, local, and territorial) and with faith-based and community-based organizations, the private sector, academic partners, and the community
- 4.3 Enhance the quality, accessibility, sharing, and use of data, including HIV prevention and care continuum and social determinants of health data
- 4.4 Identify, evaluate, and scale up best practices including through translational, implementation, and communication science research
- 4.5 Improve mechanisms to measure, monitor, evaluate, report, and disseminate progress toward achieving organizational, local, and national goals

**Priority Populations**

To focus effort and resources for the greatest impact, the Steering Committee responsible for developing the HIV Plan reviewed national-level HIV surveillance data to identify populations disproportionately affected by HIV. Based on this analysis, the HIV Plan prioritizes efforts to reduce disparities and improve HIV outcomes among

- gay, bisexual, and other men who have sex with men, in particular Black,\* Latino,\* and American Indian/Alaska Native men;
- Black women;
- transgender women;
- youth aged 13–24 years; and
- people who inject drugs.

**Key Areas of Focus**

As with the previous iteration of the NHAS, this HIV Plan identifies key focus areas with the greatest potential to strengthen the national HIV response:

- Diagnose HIV as early as possible and promptly link people to care and treatment.
- Support all people with HIV to achieve and maintain viral suppression and improve health-related quality of life as they age with HIV.
- Scale-up PrEP for people for whom it is indicated and desired, and support medication adherence and continued use.
- Address stigma, discrimination, and other social and structural determinants of health that inhibit HIV prevention, testing, and care.
- Support the development and implementation of innovative approaches to mitigate the impact of viral hepatitis and STIs, especially syphilis, gonorrhea, chlamydia, and the

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\* For this HIV Plan, Black is defined as African American or Black and Latino is defined as Latino or Hispanic.



connection of past and present trauma on the health outcomes for communities disproportionately affected by infectious diseases.

### Indicators of Progress

Working together to pursue these objectives, the nation can achieve the following targets by 2025:

#### Core Indicators

- Indicator 1 Increase knowledge of status to 95% from a 2017 baseline of 85.8%.
- Indicator 2 Reduce new HIV infections by 75% from a 2017 baseline of 37,000.
- Indicator 3 Reduce new HIV diagnoses by 75% from a 2017 baseline of 38,351.
- Indicator 4 Increase PrEP coverage to 50% from a 2017 baseline of 12.6%.
- Indicator 5 Increase linkage to care within 1 month of diagnosis to 95% from a 2017 baseline of 77.8%.
- Indicator 6 Increase viral suppression among people with diagnosed HIV to 95% from a 2017 baseline of 63.1%.
- Indicator 7 Decrease stigma among people with diagnosed HIV by 50% from a 2018 baseline median score of 31.2 on a 10-item questionnaire.
- Indicator 8 Reduce homelessness among people with diagnosed HIV by 50% from a 2017 baseline of 9.1%.

#### Disparity Indicators

To monitor our progress in addressing HIV disparities, the viral suppression indicator is stratified by the priority populations.

- Indicator 6a Increase viral suppression among gay, bisexual, and other men who have sex with men (MSM) diagnosed with HIV to 95% from a 2017 baseline of 66.1%.
- Indicator 6b Increase viral suppression among African American/Black MSM diagnosed with HIV to 95% from a 2017 baseline of 58.4%.
- Indicator 6c Increase viral suppression among Hispanic/Latino MSM diagnosed with HIV to 95% from a 2017 baseline of 64.9%.
- Indicator 6d Increase viral suppression among American Indian/Alaska Native MSM diagnosed with HIV to 95% from a 2017 baseline of 67.3%.
- Indicator 6e Increase viral suppression among Black women diagnosed with HIV to 95% from a 2017 baseline of 59.3%.
- Indicator 6f Increase viral suppression among transgender women in HIV medical care to 95% from a 2017 baseline of 80.5%.
- Indicator 6g Increase viral suppression among people who inject drugs diagnosed with HIV to 95% from a 2017 baseline of 54.9%.
- Indicator 6h Increase viral suppression among youth aged 13–24 diagnosed with HIV to 95% from a 2017 baseline of 57.1%.

The vision, goals, objectives and other components of the HIV Plan were developed and approved by a dedicated Steering Committee, composed of subject matter experts from across the federal government, with input from numerous and varied stakeholders in the field. The HIV Plan is designed to be accessible to and useful for a broad audience, including people working in public health, health care, government, community-based organizations, research, and academia. It serves as a roadmap for stakeholders from all sectors of society to guide development of policies, services, programs, initiatives, and other actions to achieve the nation's vision of ending the HIV epidemic by 2030.

The HIV Plan focuses on four areas that will have the greatest impact on the health of the nation: preventing new HIV transmissions; improving health outcomes of people with HIV; reducing HIV-related disparities and health inequities; and better integrating and coordinating efforts that address the HIV epidemic among all partners and stakeholders. Because certain demographic groups and areas are disproportionately impacted by HIV, the HIV Plan also identifies priority populations and discusses the disproportionate impact of HIV in some geographic regions so that federal agencies and other stakeholders can focus their resources to achieve the greatest impact. The priority populations were identified based on national-level data. Stakeholders are encouraged to review their own data for the populations they serve to help focus their efforts.

Interwoven throughout the HIV Plan are approaches to address the individual, community, and structural factors and inequities that contribute to the spread of HIV, such as stigma and social determinants of health. The HIV Plan highlights opportunities to integrate HIV prevention, care, and treatment into STI, viral hepatitis, substance use disorders, and other public health efforts by leveraging capacity and infrastructure across the domains and breaking down operational and funding silos. A recurring theme is the need for innovative solutions and approaches to address the ongoing and emerging challenges to HIV prevention, care, and treatment, including expanding the types of community and clinical sites that address HIV to help reach and engage people in need of services; supporting retention in HIV prevention and care services; continuing research into development of better prevention tools, therapeutics, and vaccines; and understanding how to make best use of these tools in real-world settings. The plan is designed to facilitate a whole-of-society national response to the HIV epidemic in the United States that accelerates efforts to end the HIV epidemic in the United States by 2030 while reducing HIV-associated morbidity and mortality.

The HIV Plan includes indicators for measuring progress and quantitative targets for each indicator. There are eight core indicators, one of which is stratified to measure progress in addressing HIV disparities in the priority populations (i.e., disparities indicators). To ensure implementation and accountability, a Federal Implementation Plan that documents the specific actions that federal partners will take to achieve the HIV Plan's goals and objectives will be released subsequent to the HIV Plan. Progress toward meeting the HIV Plan's goals will be monitored and reported annually.

## I. INTRODUCTION

### A. HIV Epidemic: Progress to Date

After nearly 40 years of tireless advocacy, determined research, and dedicated delivery of diagnostic, prevention, care, treatment, and supportive services, the United States now has the opportunity to end the HIV epidemic. Since it was first discovered in 1981, HIV has affected the lives of millions of people across the nation. Today, through the ongoing commitment of stakeholders from many sectors, as well as landmark biomedical and scientific research advances, the nation has many effective HIV diagnostics, prevention strategies, and improved care and treatment models. New laboratory and epidemiological approaches enable us to identify where HIV is spreading most rapidly and to respond swiftly to stop the further spread of new HIV transmissions.

Over the past decade, the HIV response in the United States has been guided by the National HIV/AIDS Strategy (NHAS or Strategy), first released in 2010 and updated in 2015.<sup>†</sup> The Strategy has changed the way that Americans talk about HIV, prioritize and coordinate resources, and deliver prevention and care services along with other clinical and nonclinical services that support people with HIV or at risk for HIV. It has also led to increased collaboration among federal agencies; people with or at risk for HIV; state, local, and tribal governments; health care providers; researchers; faith communities; and many other community partners. Since the release of the NHAS, several important achievements have bolstered the nation's HIV response:

- **Population-level viral suppression increased.** After the NHAS was released, the Centers for Disease Control and Prevention (CDC) published its first national estimates of the share of all people with HIV who have achieved viral suppression, finding that only about one in four people with HIV (27.9%) in the United States were virally suppressed in 2010.<sup>7</sup> By 2016, however, viral suppression rates in the United States had nearly doubled to 51.0%.<sup>8</sup> Although still too low, these rates represent real progress.
- **HIV diagnoses declined, especially in key groups.** HIV diagnosis rates were relatively stable for many years prior to the release of the NHAS. CDC data suggest that annual new diagnoses declined by 11.4% from 2010 (43,806) when the Strategy was released to 2018 (38,789).<sup>9</sup> Large declines occurred in some groups, including women. Deaths declined by 7.5%, from 2010 (16,742) to 2018 (15,483).<sup>10</sup>
- **Outcome disparities within the Ryan White HIV/AIDS Program were reduced.** Nearly 9 in 10 clients of the Ryan White HIV/AIDS Program (RWHAP) were virally suppressed in 2018, and the program is showing progress at reducing disparities across groups. From 2010 to 2016, the disparity in viral suppression for cisgender women and for transgender people compared to cisgender men decreased by 3.2% and 3.4%,

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<sup>†</sup> This iteration is called the HIV National Strategic Plan to recognize the changing epidemiology of the HIV epidemic in the United States, as well as to align with the nomenclature used for the Sexually Transmitted Infections National Strategic Plan and the Viral Hepatitis National Strategic Plan.

respectively. It decreased for Black Americans compared to white Americans by 4.9% and for unstably housed people compared to stably housed people by 2.3%.<sup>11</sup>

- **Policy changes ensure that federal money follows the epidemic.** Earlier in the epidemic, federal HIV resources to states and local governments were either allocated via a discretionary manner or via a formula that relied on cumulative AIDS cases, skewing resources toward early epicenters of the epidemic and not reflecting the current burden of HIV across the country. Prior to release of the Strategy, Congress changed the formulas used by the RWHP to be based on living HIV/AIDS cases. The Strategy's call for federal money to follow the epidemic spurred further action. In fiscal year 2012, CDC changed the formula for its major HIV prevention program for state and local health departments to be based on living HIV/AIDS cases, and, in 2016, Congress modernized the law that authorized the Housing Opportunities for Persons With AIDS (HOPWA) program to be based on living HIV/AIDS cases.
- **The advent of pre-exposure prophylaxis (PrEP) has increased options for HIV prevention.** The first randomized controlled trial of PrEP reported results in 2010, and the U.S. Food and Drug Administration (FDA) approved the first PrEP medication in 2012. Several federal actions embraced this new biomedical tool as an important part of comprehensive HIV prevention: for example, the CDC issued interim and then final prescriber guidance; the expansion of PrEP access was a central component of the 2015 Update to the NHAS; and the *Ending the HIV Epidemic: A Plan for America* (EHE) initiative further sought to remove barriers to PrEP uptake, including the establishment of the Ready, Set PrEP program. Although uptake remains too low and disparities are large, the adoption of new medical technologies often takes decades, and the goal is to expedite widespread adoption of PrEP for people who can benefit from it.
- **Health insurance coverage rates for people with HIV have increased to match the general population.** In 2018, just 1 in 10 (11%) nonelderly people with HIV were uninsured, a rate on par with that of the general population (10%).<sup>12</sup>
- **Strategic investments by the National Institutes of Health (NIH) in research advanced efforts toward new prevention tools, next-generation therapies, a vaccine, and a cure.** NIH discovery science has been newly complemented by a suite of NIH implementation science projects designed to meet EHE initiative goals through improved use of proven HIV strategies.
- **States, cities, and local communities developed their own HIV strategies,** aligned with the NHAS and resulting in increased coordination across all sectors, including government agencies, nongovernmental organizations, and the private sector, to respond to the HIV epidemic, with new partnerships forged.
- **The Ending the HIV Epidemic initiative was launched in 2019** as a bold plan that aims to end the HIV epidemic in the United States by 2030. EHE is the operational plan developed by agencies across the U.S. Department of Health and Human Services (HHS) to pursue that goal. The plan leverages critical scientific advances in HIV prevention, diagnosis, treatment, and outbreak response by coordinating the highly successful programs, resources, and infrastructure of many HHS agencies and offices. In its first phase, the initiative is focused on areas where data show the highest numbers of new

HIV infections, providing 57 geographic focus areas with a rapid infusion of additional resources, expertise, and technology to develop and implement locally tailored EHE plans.

## B. HIV in the United States Today

The current landscape of HIV prevention, care, and treatment presents several opportunities and challenges that shape this 5-year plan.

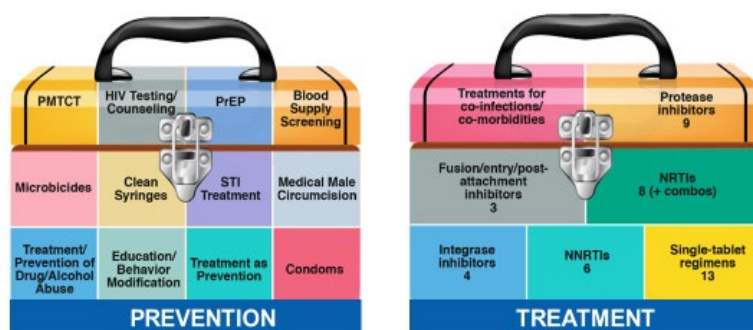
### 1. Opportunities

There are more tools than ever before to end the HIV epidemic in the United States. People who initiate antiretroviral therapy (ART) soon after diagnosis and remain adherent can live long, healthy lives.<sup>13</sup> In addition, people with HIV who take ART and achieve and maintain an undetectable viral load have effectively no risk of transmitting HIV through sex.<sup>14,15,16,17</sup> Thanks to a robust toolbox that includes syringe services programs (SSPs), PrEP, and post-exposure prophylaxis (PEP), and treatment as prevention, an individual's risk of acquiring HIV is significantly lower (see Figure 1).

**PrEP** is a once-daily pill taken to prevent HIV infection by those who are at risk of acquiring HIV.

**PEP** is used in emergency cases for people who have possibly been exposed to HIV. People must start taking the pill within 72 hours of exposure.

**Treatment as Prevention** refers to people with HIV who take HIV medication daily as prescribed and get and keep an undetectable viral load and as a result they have effectively no risk of sexually transmitting HIV to their HIV-negative partners.



**Figure 1.** HIV prevention and treatment toolkits. Source: Eisinger et al.<sup>18</sup> Published by Oxford University Press for the Infectious Diseases Society of America 2019. This work is written by (a) US Government employee(s) and is in the public domain in the US. Image modified with permission of authors.

To realize the full potential of these tools, several opportunities exist to expand the capacity of existing public health infrastructure, health care systems, and the workforce. Engaging people with and affected by HIV in community planning for and delivery of HIV prevention and care

services is essential to realizing the full potential of these tools. Further, expanding partnerships and training among traditional settings and stakeholders as well as identifying and working with nontraditional partners that are likely to engage people with HIV or at risk for HIV will better leverage the capacities of more stakeholders to facilitate access to HIV diagnostics, prevention, care, treatment, and supportive services. Key to the success of such efforts will be engaging and collaborating with partners that may not regularly provide HIV services but could reach and engage people with HIV or at risk for HIV who have not been effectively reached by existing efforts.

Importantly, the availability and use of data from a variety of sources, along with national, state, and local (and even clinic-level) indicators and targets, can help guide decision making, service planning, and resource allocation.

Along with better use of data, ensuring that community-driven planning and decision making include more diverse voices, expertise, and experiences can enhance how programs and services are tailored, implemented, and assessed to reach the populations that need them.

During the lifespan of this HIV Plan, long-acting therapeutics and other simplified HIV drug regimens may become available. The overall value, potential impact, and cost-effectiveness of each new HIV testing, prevention, care, or treatment intervention must be demonstrated. Policy and program development should occur in parallel with the review and approval process for any new prevention or treatment options, such as long-acting injectables or implantables. These efforts should incorporate formative research and conversations with all relevant stakeholders especially patients, providers, and payers to identify challenges and opportunities to prevent gaps between the approval, implementation, and uptake stages. In this way, new treatment or prevention products could better address the needs of people for whom existing interventions have not been effective or who have struggled with adherence.

Ongoing HIV research will facilitate progress toward HIV prevention, treatment, addressing of co-occurring health conditions, and better understanding and addressing of HIV disparities and inequities while advancing novel approaches toward long-term HIV remission and the ultimate goal of an HIV cure.

These opportunities and developments, among others, continue to transform and will help guide the nation's approach to HIV through 2025.

## 2. Challenges

Although the United States is making significant progress in improving HIV outcomes, significant challenges remain (see Table 1). For example, the most recent data available (2018) show the following:

- Less than one-half (38.9%) of the U.S. population has ever been tested for HIV.<sup>19</sup> Of people with HIV, an estimated 161,860 (14%) were unaware of their status.<sup>20</sup>
- Only 65% of people diagnosed with HIV were virally suppressed.<sup>21</sup>

- Approximately 80% of new HIV infections are due to people who do not know they have HIV or are not receiving regular care (see Table 1).<sup>22</sup>
- Only 18% of the approximately 1.2 million people indicated for PrEP are receiving it; therefore, about 4 in 5 people who could benefit from PrEP are not receiving it. Further, significant disparities in PrEP coverage persist based on race/ethnicity, gender, and age.<sup>23,24</sup> Among those who initiate PrEP, adherence and long-term maintenance can be a challenge.<sup>25,26</sup>

**Table 1. HIV Transmissions in the United States, 2016**

<b>% of People with HIV</b>	<b>Status of Care</b>	<b>Accounted for X% of New Transmissions<sup>a</sup></b>
15%	Didn't know they had HIV	38%
23%	Knew they had HIV but weren't in care	43%
11%	In care but not virally suppressed	20%
51%	Taking HIV medicine and virally suppressed	0%

<sup>a</sup> Total does not equal 100% because of rounding. Note: CDC analysis shows that the vast majority (about 80%) of new HIV infections in the United States in 2016 were transmitted from the nearly 40% of people with HIV who either did not know they had HIV, or who received a diagnosis but were not receiving HIV care.<sup>27</sup>

Although anyone can acquire HIV, the epidemic disproportionately affects specific populations, communities, and geographic areas across the United States. These disparities exist among gay, bisexual, and other men who have sex with men (MSM), especially Black and Hispanic/Latino men.<sup>‡</sup> They also exist among Black women, transgender women, youth (particularly gay and bisexual young men and transgender youth), and people who inject drugs. These gaps remain particularly troublesome not only among disproportionately affected populations, but also in some rural areas and the South. In 2018, it was estimated that more than one-half of new HIV infections occurred in the South.<sup>28</sup>

Health disparities stem from inequities in the social determinants of health and highlight the need to focus not only on HIV prevention and care efforts, but also on how programs, practices, and policies affect communities of color and other populations that experience HIV disparities.

Racial and ethnic minority groups are more likely to be uninsured compared to non-Hispanic Whites, limiting their access to health care. Barriers to health care access include lack of transportation and childcare, inability to take time off work, experiences with housing instability or homelessness, communication and language barriers, racism, discrimination, and lack of trust in health care providers.

Sexual and gender minority populations also face health disparities.<sup>29,30,31,32,33</sup> Barriers to health care include stigma, discrimination, medical mistrust, and lack of access to affirming mental health care.<sup>34</sup> Sexual and gender minorities face greater health challenges than heterosexuals due in part to inequities such as stigma and discrimination.<sup>35</sup> Sexual and gender

<sup>‡</sup> For this HIV Plan, Black is defined as African American or Black; and Latino is defined as Latino or Hispanic.



minority populations have lower levels of health insurance and access to regular health care compared to heterosexuals.<sup>36,37</sup>

Another threat to achieving national HIV prevention and care goals is the increase in drug use and the opioid crisis facing the nation. Increases in drug use are linked to rising rates, and even outbreaks, of several infectious diseases including hepatitis A, hepatitis B, hepatitis C, and HIV,<sup>38</sup> which threaten the progress to date to reduce HIV transmission, particularly among people who inject drugs. Recognizing this threat, in 2016, CDC identified 220 counties in 26 states that are vulnerable to HIV and viral hepatitis as a result of the opioid epidemic.<sup>39</sup> Using drugs or alcohol may lead to sexual behaviors (e.g., having sex without a condom, having multiple partners) that increase the risk of getting or transmitting HIV. For people with HIV, substance use can hasten disease progression and negatively affect care retention and treatment adherence.<sup>40</sup>

Rising rates of sexually transmitted infections (STIs) also threaten efforts to reduce new HIV infections.<sup>41,42</sup> A recent modeling analysis estimated that 10% of HIV infections in gay and bisexual men were attributable to untreated gonorrhea and chlamydia.<sup>43</sup> Siloed program delivery leads to missed opportunities to screen, link, and provide navigation, care management, and treatment for people with HIV, STIs, viral hepatitis, and substance use and/or mental health disorders.

### 3. HIV, STIs, Viral Hepatitis, and Substance Use Disorders—A Holistic Approach to the Syndemic

This interacting, synergistic effect of linked health conditions such as HIV, viral hepatitis, STIs, and substance use and mental health disorders that contribute to excess burden of disease in a population is known as a syndemic. Addressing a syndemic in populations, communities, and people can be challenging because it requires integrated and simultaneous efforts across respective prevention, screening, diagnosis, and treatment programming as well as rapid implementation of new scientific advances. A holistic approach to addressing the syndemic can only be effective if we continue to explore the connection between trauma and infectious diseases. Past and present trauma

A **syndemic** is a set of linked health problems that interact synergistically and contribute to excess burden of disease in a population.

A syndemic occurs when health-related problems cluster by person, place or time.

Social determinants of health and stigma also play a significant role in this syndemic.

contribute to the excess burden of disease in many communities at risk and with HIV, STIs, viral hepatitis, and substance use and mental health disorders. This burden challenges collective efforts to provide prevention and care services because trauma-informed service models are not fully developed, and ready access to substance use treatment and mental health care may be lacking. However, the opportunity exists to bolster coordination, capacity, and delivery of services to populations at risk for these linked conditions. To help drive a coordinated response to the syndemic, the HIV Plan was developed concurrently with the next iteration of the Viral



Hepatitis National Strategic Plan (Hepatitis Plan) and the inaugural Sexually Transmitted Infections National Strategic Plan (STI Plan). The HIV National Strategic Plan recognizes that trauma is part of the syndemic and that better understanding of the connection between past and present trauma is critical to improving health outcomes in certain communities.

These interrelated health conditions present potential challenges to achieving national HIV goals. Yet, recognizing each of them as well as the syndemic presents an opportunity to conduct relevant research and analyses, develop evidence-based interventions and policy options, and allocate resources to respond efficiently and effectively.

### **COVID-19 and the Syndemic**

This plan is being released during an unprecedented pandemic. In early 2020, SARS-CoV-2, the coronavirus that causes COVID-19 disease, spread rapidly across the globe and the United States, infecting millions, claiming the lives of hundreds of thousands of people, and causing great uncertainty including for people with HIV and people at risk for HIV, STIs, and viral hepatitis.

The pandemic has exacerbated existing challenges in the nation's public health care system as well as health inequities. It has diminished capacity for routine clinical and public health services and the service disruptions and economic consequences of the pandemic disproportionately impact many of the populations and communities most affected by HIV, STIs, and viral hepatitis. Similarly, the pandemic disrupted HIV prevention and care services provided by many community-based organizations and AIDS services organization.

It remains vital to maintain HIV, STIs, and viral hepatitis services as well as substance use and mental health treatment services while responding to the pandemic. Innovative approaches have evolved to include increased use of and reimbursement for telemedicine, distribution of self-testing and home specimen collection kits, offering of multi-month medication refills, and partnerships with pharmacies and retail health clinics to ensure continuity of care. Some of these adaptations may prove to be sustainable and effective in achieving the national goals to address the syndemic of HIV, STI, and viral hepatitis.

The impact of COVID-19 on the syndemic will continue to evolve as therapeutics and vaccines are researched, developed, and implemented. However, HIV, STI, and viral hepatitis stakeholders remain committed to addressing the public health syndemic. The nation's evolving response will require continued innovation, input from the impacted communities, and identification of opportunities to integrate and leverage resources and lessons that advance efforts to address infectious disease threats to the public health of America.

## **C. HIV National Strategic Plan: Roadmap to End the HIV Epidemic 2021–2025**

This HIV Plan, updated for 2021–2025, builds on the lessons learned and progress of previous iterations and seeks to leverage opportunities and address the challenges that remain. It provides a national roadmap for continuing the coordinated response to HIV and puts the

country on the path to end the HIV epidemic in the United States by 2030. The HIV Plan is guided by this vision statement:

*The United States will be a place where new HIV infections are prevented, every person knows their status, and every person with HIV has high-quality care and treatment and lives free from stigma and discrimination.*

*This vision includes all people, regardless of age, sex, gender identity, sexual orientation, race, ethnicity, religion, disability, geographic location, or socioeconomic circumstance.*

This HIV Plan includes the following:

- Four goals to achieve this vision, specific objectives for each goal, and strategies for each objective. The goals, objectives, and strategies are updated to reflect lessons learned and the efforts necessary to end the HIV epidemic.
- Five key areas of focus with the highest expected impact on the national response to HIV.
- Priority populations, identified by national-level data as disproportionately affected by HIV, to help focus stakeholder efforts and resource allocation.
- Eight core indicators and one disparity indicator stratified for each priority population with quantitative targets to track progress toward achieving national HIV goals.

The HIV Plan's objectives and strategies are intended to be implemented by a broad mix of stakeholders at all levels and across many sectors, both public and private. They also serve as a tool to foster a shared focus, enhance coordination of efforts across agencies and programs, and identify areas of synergy and new opportunities to sharpen collective efforts.

The HIV Plan adopts bold targets for ending the HIV epidemic in the United States by 2030, calling for a 75% reduction in new HIV infections by 2025 and a 90% reduction by 2030. Ten-year quantitative targets are set in recognition that it will take longer than 5 years to end the HIV epidemic, but that we will need to reexamine our efforts mid-course and, if necessary, make adjustments to reach the nation's goals. This iteration of the HIV Plan's goals, objectives, and strategies focuses on achieving national targets set for 2025 and sets the stage to expand upon this progress to ultimately end the HIV epidemic by 2030. As such, the HIV Plan's vision, goals, objectives, strategies, indicators, and quantitative targets align with EHE, which complements and will serve as one of many important implementation elements of the HIV Plan (see Box 1). The HIV Plan's indicators and quantitative targets also align with *Healthy People 2030*.

A Federal Implementation Plan describing specific actions that federal agencies across the government will undertake from 2021 to 2025 to achieve the HIV Plan's goals and objectives will be developed and released. The Federal Implementation Plan will also increase transparency and accountability and promote coordination and collaboration among the various departments and agencies. Progress toward meeting the HIV Plan's goals including

updates on federal commitments and highlights from nonfederal actions will be reported regularly.

**Box 1****The HIV National Strategic Plan and *Ending the HIV Epidemic: A Plan for America***

The HIV Plan and [\*Ending the HIV Epidemic: A Plan for America\*](#) (EHE) initiative are complementary, with EHE serving as a leading component of the work by the U.S. Department of Health and Human Services (HHS), in collaboration with federal, state, and local partners, to achieve the common goal. Phase I of EHE focuses on the geographic areas in the country with the highest HIV disease burden and will be expanded in Phases II and III. The HIV Plan specifically addresses integration of efforts related to the other components of the syndemic, stigma, discrimination, and social determinants of health; has a broader focus across the federal government, including agencies beyond HHS; and seeks to engage all sectors of society. The HIV Plan covers the entire country and encourages federal collaboration to support locally driven solutions to help reach the 5-year goals as outlined in this strategy.

In February 2019, President Donald J. Trump announced his Administration’s goal to end the HIV epidemic in the United States within 10 years. To achieve this goal, HHS launched EHE to leverage available data and tools. The initiative aims to reduce new HIV transmissions in the United States by 75% by 2025 and by 90% by 2030. EHE outlines four pillars to achieve this goal:

- Diagnose all people with HIV as early as possible.
- Treat people with HIV rapidly and effectively to reach sustained viral suppression.
- Prevent new HIV transmissions by using proven interventions, including preexposure prophylaxis (PrEP) and syringe services programs (SSPs).
- Respond quickly to potential HIV outbreaks to get prevention and treatment services to people who need them.

More than one-half of new HIV diagnoses in 2016 and 2017 occurred in 48 counties, Washington, DC, and San Juan, Puerto Rico. In addition, seven states have a disproportionate occurrence of HIV in rural areas. From 2020 to 2025 (Phase I), EHE will focus on a rapid infusion of new resources, expertise, and technology into these jurisdictions. During Phase II, efforts will be even more widely disseminated across the nation to reduce new infections by 90% by 2030. During Phase III, ongoing care and treatment and intensive case management will be implemented to maintain the number of new infections at fewer than 3,000 per year.

Both the HIV Plan and EHE align to end the HIV epidemic in the United States by 2030. The HIV Plan is the entire nation’s road map to a holistic approach to engaging a broad range of stakeholders across many sectors of society to help achieve national goals to end the HIV epidemic.

## D. Priority Populations

Although HIV affects millions of Americans nationwide and from all social, economic, and racial and ethnic groups, and in all parts of the country, it disproportionately affects certain populations. The disproportionate prevalence of HIV in specific populations increases the risk for HIV transmission with each sexual or injection drug use encounter within those populations. In addition, a range of social, economic, and demographic factors—such as stigma, discrimination, income, education, and geographic region—affect people’s risk for HIV or their ability to access or remain engaged in prevention or care services.

To focus effort and resources for the greatest impact, the Steering Committee responsible for developing the HIV Plan and its Indicators Subcommittee (see Appendix B) reviewed national-level HIV surveillance data to identify populations disproportionately affected by HIV. They explored the following factors: (1) incidence of new HIV infections and trends; (2) prevalence of HIV; (3) HIV diagnoses; (4) outcomes along the HIV care continuum; and (5) potential impact of other major public health threats (e.g., opioid epidemic). Based upon this analysis, the HIV Plan prioritizes efforts to reduce disparities and improve HIV outcomes among

- gay, bisexual, and other men who have sex with men, in particular Black, Latino, and American Indian/Alaska Native men;
- Black women;
- transgender women;
- youth aged 13–24 years; and
- people who inject drugs.

Focusing efforts on these five priority populations will reduce the HIV-related disparities they experience, which is essential if the nation is to succeed on the path toward ending the HIV epidemic by 2030. This focus should not diminish efforts to prevent, diagnose, and treat HIV, more generally, for all populations affected by HIV, who remain a critical concern throughout this plan. For example, just over one-half of the people with diagnosed HIV in the United States today are over age 50. While this statistic is a marker of the success of modern HIV treatment, it signals the need to tailor services to support this population to continue to remain engaged in care and virally suppressed and to meet their evolving needs related to comorbidities associated with aging. Similarly, people experiencing unstable housing or homelessness are known to have lower rates of viral suppression, thus requiring their own unique services to support engagement in care and viral suppression.

To drive action and measure progress toward reducing health inequities and disparities among the priority populations, the HIV Plan uses viral suppression, stratified by population, as an indicator. Viral suppression was selected as the disparity indicator because increasing and maintaining viral suppression among priority populations will improve health outcomes, reduce HIV-related death, and prevent new HIV transmissions.

Local partners and stakeholders must use local data to identify the populations most affected in their communities and to understand outcomes for each along the continuum of HIV

prevention and care. Each state, tribe, community, program, or clinic will make its own assessment of relevant priority populations so that programs and services can be tailored and focused accordingly. In some jurisdictions, local surveillance and program data may indicate that additional populations not mentioned here are experiencing persistent HIV disparities that require focus from local efforts.

In addition, some stakeholders may work with specific populations or communities in a limited area with data that vary somewhat from the national data. For example, on a federal level, agencies such as the Indian Health Service, CDC's Division of Adolescent and School Health, Department of Veterans Affairs, and Administration for Community Living serve distinct populations at risk. Likewise, state, tribal, territorial, and local jurisdictions, as well as schools and other institutions may serve distinct populations. For these and other stakeholders, efforts should be guided by an assessment of health disparities within their purview and/or jurisdiction to determine how best to focus available resources to achieve results with the greatest impact.

A more detailed discussion of determining priority populations can be found in Appendix A.

## E. Key Focus Areas

As with the previous iteration of the NHAS, this HIV Plan identifies key focus areas with the greatest potential to strengthen the national HIV response:

- **Diagnose people with HIV as early as possible and promptly link them to care and treatment.** Early detection helps people enter care and treatment soon after acquiring HIV and prevents HIV transmission to others. Increased awareness about HIV and availability of low-barrier HIV testing for people for whom it is recommended and desired are ongoing needs.
- **Support all people with HIV to achieve and maintain viral suppression and improve health-related quality of life as they age with HIV.** Achieving and maintaining HIV viral suppression provides important health and prevention benefits for people and the nation as a whole. In order to increase the proportion of people with HIV who are durably virally suppressed, the nation must continue to make improvements across the HIV care continuum to ensure that as many people living and aging with HIV as possible can achieve each successive step. Also necessary is the provision of whole-person care that addresses noncommunicable comorbidities and co-infections, such as viral hepatitis, that often impact the health of people with HIV, and other obstacles to remaining in care and treatment.
- **Scale-up PrEP for people for whom it is indicated and desired, and support medication adherence and continued use.** An analysis showed a correlation between increased PrEP uptake and decreases in new HIV diagnoses in United States.<sup>44</sup> PrEP use is also associated with increased engagement in ongoing health care, reduced anxiety related to HIV and other STIs, increased sexual pleasure, and reduced stigma toward people with HIV.<sup>45</sup> Given the strength of the scientific evidence and its potential to reduce new HIV infections, the HIV Plan continues to recognize the need to increase awareness, access, and adherence to PrEP as well as support people in addressing clinical or

financial barriers to their continued use of PrEP. However, PrEP may not be the desired or appropriate HIV prevention option for all people, so continued promotion of the full array of highly effective HIV prevention options and research into new prevention tools remain important.

- **Address stigma, discrimination, and other social and structural determinants of health that inhibit HIV prevention, testing, and care.** Every person with and at risk for HIV should receive diagnostic, preventive, care, treatment, and supportive services that are non-stigmatizing, or non-discriminatory, competent, and responsive to their needs.
- **Support the development and implementation of innovative approaches to mitigate the impact of viral hepatitis and STIs and the connection of past and present trauma on the health outcomes for communities disproportionately affected by infectious diseases.** This focus area includes supporting additional implementation research efforts for both prevention and care and the creation of new partnerships as a part of an integrated approach to screening, prevention, and treatment of people and populations with high rates of concurrent infectious diseases.

## F. Development of the HIV National Strategic Plan

A Steering Committee, representing 6 federal departments and 14 HHS agencies and offices, oversaw the development of the HIV Plan and, concurrently, the Hepatitis Plan. The Steering Committee set the vision, goals, and priority populations for the nation; identified and discussed key challenges to be addressed in each updated strategy; and prioritized best practices. The HIV Plan was informed by input from a wide range of stakeholders gathered through 18 in-person and virtual listening sessions and a Request for Information published in the *Federal Register*, which elicited nearly 400 comments (see Appendix A).

Recognizing the importance of addressing the syndemic of HIV, STIs, viral hepatitis, and substance use and mental health disorders, the HIV Plan was developed concurrently and in alignment with the next iteration of the Hepatitis Plan and the inaugural STI Plan. Together, these three plans aim to enhance coordination of the activities of federal agencies and diverse community stakeholders to reduce morbidity and mortality, stigma, discrimination, health inequities, and disparities; improve outcomes; and fortify a strengthened public health and health care infrastructure to support prevention, diagnosis, care, and treatment across these infectious diseases. To that end, federal activities to implement the three plans will be aligned and synergized where possible. The next iteration of the National Vaccine Plan will also align with elements of these three plans.

## II. GOALS AND RELATED OBJECTIVES, STRATEGIES, AND INDICATORS OF PROGRESS

### Goal 1: Prevent New HIV Infections

#### The Opportunity

The most effective ways to reduce new HIV infections are to ensure timely diagnosis and engagement in care and treatment for people with HIV so that they achieve and maintain viral suppression and therefore cannot transmit the virus; target prevention resources to the places with the largest disease burden and the populations at greatest risk; and ensure that the most effective prevention strategies are prioritized and widely implemented.

An ongoing emphasis on primary prevention remains important. As CDC observes, not having sex is a 100% effective way to prevent getting or transmitting HIV through sexual activity. Also, for those engaging in sexual activity, reducing the number of sexual partners, choosing less risky sex, and having open and honest communication with your partners about your HIV status and sexual history are reliable ways to avoid HIV. The CDC also notes that correct and consistent use of condoms is highly effective in reducing HIV transmission.<sup>46</sup>

Continued research into the best use of existing prevention tools as well as new options, including PrEP, microbicides, and vaccines, is also necessary.

Because of advances and innovations during the past decade, an array of HIV prevention options, for use in combination or on their own, are available to people with HIV and at risk for HIV, including the following:

- **HIV treatment as prevention.** HIV treatment is now a key HIV prevention tool. A growing body of evidence has definitively shown that people with HIV who achieve and maintain an undetectable viral load by taking HIV medication as directed will not sexually transmit the virus to an HIV-negative partner. This finding has giving rise to the understanding of “treatment as prevention.” In these studies, no HIV infections occurred within mixed-status couples, even in the absence of condoms or PrEP, when the HIV-positive partner had a suppressed viral load (defined as having a viral load of less than 400 copies of HIV RNA per milliliter). Therefore, a grassroots movement has emerged to promote the value of HIV treatment as prevention through the “Undetectable = Untransmittable” campaign, also known as U=U.
- **HIV testing and linkage to care.** People who test positive for HIV can take steps to prevent others from being exposed to the virus.<sup>47</sup> However, nearly 40% of people with HIV are unaware of their status or are diagnosed but not receiving care. In 2016, people unaware or not receiving care accounted for nearly 80% of new HIV infections in the United States.<sup>48</sup> This finding underscores the critical roles of testing, prompt linkage to

People who take HIV medications daily as prescribed to achieve and maintain an undetectable viral load have **effectively no risk** of sexually transmitting HIV to HIV-negative partners.

HIV care and treatment, and ongoing support services in preventing new HIV transmissions.

- **PrEP.** Uptake of PrEP, which reduces the risk of getting HIV from sex by about 99% when taken daily, has climbed in recent years. After reviewing the available research on PrEP, in June 2019 the U.S. Preventive Services Task Force (USPSTF) issued a Grade A recommendation for providers to offer PrEP to people at high risk for HIV.<sup>49</sup> With this recommendation, beginning in January 2021, patients with private insurance plans subject to preventive service requirements or health coverage through Medicaid Expansion can receive first-dollar coverage (no cost-sharing) for their PrEP medication. In addition, in 2020 FDA approved a second drug for PrEP and a generic version of the original drug became available, increasing options for people who wish to use PrEP. EHE's nationwide [Ready, Set, PrEP program](#) is helping to increase access to PrEP by making the medications available at no cost to people who lack prescription drug coverage.
- **SSPs and other harm reduction services.** The sharing of needles and other drug paraphernalia increases the risk for HIV and other blood-borne infections such as viral hepatitis. Studies have shown that SSPs—community-based programs that provide access to and disposal of sterile syringes and injection equipment as well as a range of health services to people who inject drugs—substantially reduce the risk for HIV and serve as a bridge to substance use disorder treatment without increasing drug use.<sup>50</sup>
- **Other effective prevention interventions.** Other prevention methods have been shown to be effective. Correct condom use remains one of the most effective methods to reduce the risk of HIV transmission during sexual activity. Further, reducing the number of sexual partners lowers the likelihood of having a partner who can transmit HIV, engaging in other safer sex practices that avoid exchanging body fluids decreases risk, and practicing abstinence completely eliminates the chance of being exposed to HIV.

In addition, a range of HIV prevention or multipurpose prevention products are under development or regulatory review, which could result in even more HIV prevention tools becoming available within the 5-year span of this plan.

## Challenges

To achieve the goal of reducing new infections the following challenges must be addressed:

- Many people in the United States still do not have the basic facts about HIV, including information on the latest prevention options and the effectiveness of HIV treatment.<sup>51</sup>
- People at high risk for HIV are either not offered or do not receive HIV testing when visiting health care providers.<sup>52</sup> (See Box 2.)
- Sexually transmitted diseases (STDs) are surging in the United States, reaching an all-time high in 2018.<sup>5</sup> From 2014 to 2018, the rates of reported cases of primary and

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<sup>5</sup> The term sexually transmitted infection (STI) refers to a virus, bacteria, fungus, or parasite that a person has acquired via sexual contact, whereas the term sexually transmitted disease (STD) refers to a recognizable disease state that has developed from an STI. Some stakeholders commonly use the term STI, and some commonly use the term STD.



secondary syphilis, congenital syphilis, gonorrhea, and chlamydia rose 71%, 185%, 63%, and 19%, respectively.<sup>53</sup> The presence of STDs increases the risk of transmitting or acquiring HIV. Improved offering of HIV testing and prevention services, including PrEP, at STD specialty clinics would strengthen HIV prevention services. (See Box 3.)

- A significant number of people with HIV are unaware of their status or diagnosed in the later stages of their HIV disease. In 2018, 14%, or about 161,860 of people with HIV, were undiagnosed,<sup>54</sup> and nearly 21% of people diagnosed with HIV had a stage 3 (AIDS) classification at the time of diagnosis.<sup>55</sup>
- A significant percentage of people with HIV are not retained in care and thus do not reap the health and prevention benefits of treatment and other services, with only 50% in continuous HIV medical care and 56% virally suppressed in 2018.<sup>56</sup>
- Despite the availability of PrEP since 2012, disparities in uptake persist.<sup>57,58,59</sup> Though CDC estimates that 1.2 million people in the United States had indications for PrEP in 2018, only 18.1% were prescribed PrEP.<sup>60</sup>

## Box 2

### Missed Opportunities for HIV Diagnosis

Substantial numbers of people at higher risk of HIV who had been unaware of their HIV infection experienced missed opportunities for earlier diagnosis. For example, in one study, approximately one-half of newly diagnosed gay and bisexual men and people who inject drugs who had been unaware of their infection until diagnosed during the study reported not being offered HIV testing by any health care provider despite having seen one in the past year.<sup>61</sup> Further, a retrospective study at an urban adolescent HIV clinic found that many youth living with recently diagnosed HIV had prior primary and acute care encounters within the health care system but did not receive an HIV test.<sup>62</sup>

Other studies have pointed out missed opportunities by setting. For example, STD clinic patients represent a population at increased risk for HIV, yet data from nine STD clinics across the United States show that approximately three-quarters of STD clinic patients were not tested for HIV despite having a visit to the clinic in the past year.<sup>63</sup> Similarly, more than two-thirds of missed opportunities for HIV diagnoses in a Louisiana health care system occurred at nonprimary care health care visits including inpatient care, specialty care clinics, surgical specialties, ob-gyn visits, and emergency care facilities.<sup>64</sup> In addition, a study from an infectious disease practice in New Jersey found that hospital emergency departments and subspecialty clinics were the two most common locations for missed testing opportunities, with between 37% and 45% of patients presenting with a new HIV diagnosis with an encounter in the institution in the year prior.<sup>65</sup>

These missed opportunities for HIV testing result in diagnosis delays, disease progression, and missed opportunities for HIV care and treatment. They also prolong the time a person is unaware of their infection, increasing the potential for HIV transmission. For care and treatment to reduce HIV incidence effectively, a high proportion of cases need to be diagnosed and treated soon after infection occurs. Improved testing coverage and frequency

are needed to meet the goal of at least 95% of persons with HIV knowing their infection status and to reduce diagnosis delays and ultimately reduce HIV incidence in the United States.

DRAFT

### **Box 3** **STD Specialty Clinics**

STD specialty clinics play a vital role in reaching people at risk for HIV who are not engaged in HIV prevention programs or other health care services, including those who are uninsured and those who seek confidential services. In addition, STD specialty clinics serve a high proportion of racial and ethnic minorities, gay and bisexual men, and transgender people. STD specialty clinics are suitable settings to reach populations at high risk of HIV who could benefit from PrEP/PEP or people with HIV who are either unaware of their status or are not virally suppressed and could benefit from linkage to or reengagement in care.

Sources: CDC<sup>65</sup>, Weston et al.<sup>66</sup>, Seth et al.<sup>67</sup>, Hoover et al.<sup>68</sup>

## **Summary of Objectives**

The following objectives are critical to achieving the goal of preventing new HIV infections:

- 1.1 Increase awareness of HIV
- 1.2 Increase knowledge of HIV status
- 1.3 Expand and improve implementation of effective prevention interventions, including treatment as prevention, PrEP, PEP, and SSPs, and develop new options
- 1.4 Increase the capacity of health care delivery systems, public health, and the health workforce to prevent and diagnose HIV

## **Indicators of Progress**

Working together to pursue these objectives, the nation can achieve the following targets by 2025:

- |             |  |
|-------------|--|
| Indicator 1 | Increase knowledge of status to 95% from a 2017 baseline of 85.8%. |
| Indicator 2 | Reduce new HIV infections by 75% from a 2017 baseline of 37,000.   |
| Indicator 3 | Reduce new HIV diagnoses by 75% from a 2017 baseline of 38,351.    |
| Indicator 4 | Increase PrEP coverage to 50% from a 2017 baseline of 12.6%.       |

## **Objectives and Strategies**

### ***Objective 1.1 Increase awareness of HIV***

Nearly four decades into the HIV epidemic, too many people still lack essential information about HIV or hold misconceptions about the virus, including how it is prevented and transmitted. The resulting misperception of self-risk and perpetuation of HIV-related stigma and discrimination can deter people from learning their status, accessing prevention services, seeking or remaining in care, or supporting people who need diagnostic, prevention, care, or treatment services.

More must be done to increase HIV awareness among everyone, but especially among people, communities, and the health workforce where HIV is most heavily concentrated. Messaging must be clear, specific, consistent, [culturally and linguistically appropriate](#) and must reflect today's scientific knowledge of HIV disease progression, its impact on community and individual health, the importance of early and sustained HIV treatment, and the health and prevention benefits of viral suppression. Once developed, the messaging should be broadly and persistently disseminated as educational campaigns using both traditional and social media delivered by trusted community members and community influencers.

School-based health education helps prevent HIV among adolescents by providing students with the knowledge and skills to help them be healthy and avoid HIV. HIV prevention education implemented in schools includes curricula that are medically accurate, developmentally appropriate, and culturally relevant with content and skills that target key behavioral outcomes and promote healthy sexual development. Suitable primary prevention approaches focused on youth should be age-appropriate, linguistically and culturally informed, community-centered, inclusive, stigma-reducing, and grounded in science and medicine. According to the American Academy of Pediatrics, developmentally appropriate and evidence-based education about human sexuality and sexual reproduction provided over time by pediatricians, schools, other professionals, and parents is important to help children and adolescents make informed, positive, and safe choices about healthy relationships, responsible sexual activity, and their reproductive health.<sup>70,71</sup> As an example, primary prevention for adolescents who are not yet sexually active should encourage open and honest dialogue about the benefits of delaying the onset of sexual activity and other aspects of sexual health as appropriate. Primary prevention should be a part of comprehensive sexual education, particularly for youth, including abstinence or delayed initiation of sexual activity for those who are not yet sexually active, and non-judgmental information about safer sexual activity for those who are sexually active.

These efforts must engage people and organizations who shape and influence knowledge, attitudes, beliefs, and behaviors, particularly among populations at risk of HIV, as well as leverage digital strategies and new technologies to reach the highest number of people at relevant access points.

### **Strategies**

- 1.1.1 Develop and implement campaigns and resources to provide education about comprehensive sexual health; HIV risks; options for prevention, testing, care, and treatment; and HIV-related stigma reduction.
- 1.1.2 Increase awareness of HIV among people, communities, and the health workforce in geographic areas disproportionately affected.
- 1.1.3 Integrate HIV messaging into existing campaigns and other activities pertaining to other parts of the syndemic, such as STIs, viral hepatitis, and substance use and mental health disorders.

**Objective 1.2 Increase knowledge of HIV status**

In addition to general knowledge about HIV, it is important for persons with HIV to receive a diagnosis (also known as knowledge of HIV status), which would allow them to take control of their health. Full implementation of CDC and USPSTF screening and testing guidelines is critical to increasing knowledge of status (see Box 4). Innovative models and approaches that expand access to and availability of testing in various settings such as routine opt-out testing in clinical settings and self-testing are required. Early detection coupled with rapid linkage to care and treatment is also critical and can lead to improved individual and community health outcomes.

**Box 4****HIV Testing Recommendations**

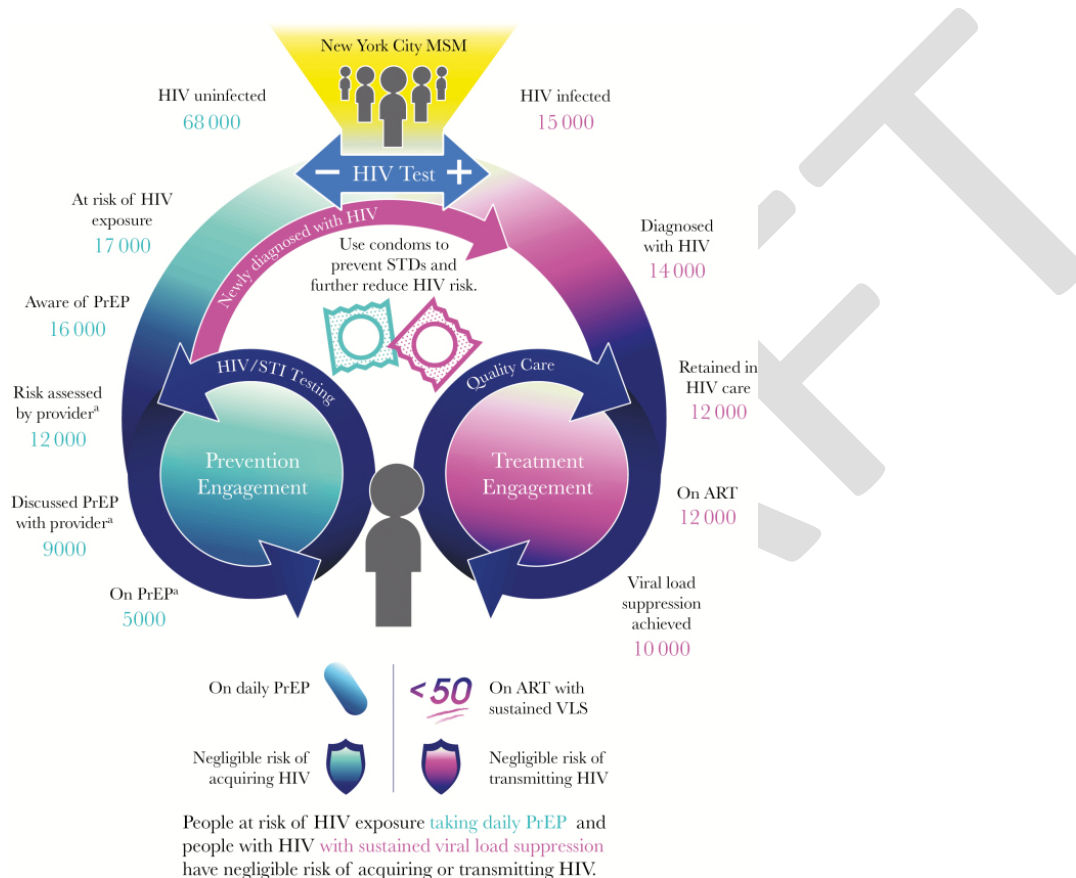
**USPSTF Recommendation (2019)**—The USPSTF recommends that clinicians screen for HIV in adolescents and adults aged 15–65. Younger adolescents and older adults who are at increased risk of infection should also be screened. The USPSTF also recommends that clinicians screen for HIV infection in all pregnant people, including those who present in labor or at delivery with unknown HIV status. [Read the recommendation.](#)

**CDC Recommendations (2006)**—CDC recommends that everyone ages 13–64 get tested for HIV at least once as part of routine health care. For those with specific risk factors, CDC recommends testing at least annually. [Read the recommendations.](#)

Expansion of the status neutral approach to HIV services allows for ongoing engagement in HIV prevention, care, and treatment regardless of a person’s HIV status (see Box 5). HIV testing serves as the entry point to services. In addition, people are assessed for and engaged in continuous care and supportive services if needed to improve health and prevent new infections (see Figure 2). People whose HIV test results are negative are informed of and linked to the HIV prevention options that work best for them, retested as needed, and engaged in the broader system of health care to address other health needs. People whose HIV test results are positive are immediately linked to care and treatment. It also is necessary to provide partner services such as confidentially notifying partners of a possible HIV and/or STI exposure; offering partners HIV and STI testing and treatment and PrEP, if indicated; and linking to a range of medical, prevention, and psychosocial services for co-occurring conditions, if needed.

### Box 5 Status Neutral Approach to HIV

Adoption of a status neutral approach to HIV services—in which HIV testing serves as an entry point to services regardless of positive or negative result—can improve testing as well as prevention and care outcomes. In this approach, people diagnosed with HIV are linked to care and treatment services as quickly as possible to achieve and maintain viral suppression, which both protects their own health and prevents transmission.



**Figure 2.** Status neutral approach to HIV. Source: Meyers et al.<sup>69</sup> © The Author(s) 2018. Published by Oxford University Press on behalf of Infectious Diseases Society of America.

### Strategies

- 1.2.1 Test all people for HIV according to the most current USPSTF recommendations and CDC guidelines.
- 1.2.2 Develop new and expand implementation of effective, evidence-based, or evidence-informed models for HIV testing that improve convenience and access.
- 1.2.3 Incorporate a status neutral approach to HIV testing, offering linkage to prevention services for people who test negative and linkage to HIV care and treatment for those who test positive.

- 1.2.4 Provide partner services to people diagnosed with HIV or other STIs and their sexual or needle-sharing partners.

***Objective 1.3 Expand and improve implementation of effective prevention interventions, including treatment as prevention, PrEP, PEP, and SSPs, and develop new options***

Today, a range of highly effective prevention methods are available for use in combination or on their own. However, they do not yet reach everyone who needs them. Scaling up combinations of scientifically proven, cost-effective interventions targeted to the right populations in the right geographic areas is key to preventing new HIV infections. Especially important is scaling up highly effective, biomedical interventions: treatment as prevention (U=U), PrEP, and PEP, along with other highly effective prevention interventions including abstinence, correct and consistent condom usage, HIV testing, and harm reduction and behavioral health services.<sup>70,71,72,73,74</sup>

These interventions must be available to people who need them in a variety of traditional health care and public health settings as well as nontraditional settings. Public health and health care systems can better meet the HIV prevention needs of the people they serve by developing or adopting culturally competent and linguistically appropriate approaches and policies to service design and delivery. Examples of interventions include the development and adoption of models that allow for low-barrier access to prevention and supportive services such as expanded service hours, drop-in appointments, telehealth, peer navigators, community health workers, and co-located service delivery.<sup>75</sup> Schools can offer on-site sexual health services through their own health care infrastructure, such as school-based health centers (SBHCs) and school nurses or can establish referral systems to community partners to provide services, such as periodic, school-wide HIV screening events or mobile clinics. Policy and other systemic changes can support this work, and often be cost-neutral or cost-saving, as resources are realigned and services are provided at focused hours and delivery is optimized to those seeking assistance.

Ongoing implementation research on how best to use new and existing HIV prevention tools is needed, as is continued research into new tools that make HIV prevention more convenient and accessible. This must include further research on biomedical interventions that simplify implementation, such as long-acting, extended-release tools that can protect against HIV infection, as well as strategies to most effectively integrate such tools into HIV prevention services when they become available. Continued research into other prevention tools is also needed, including antibody mediated protection strategies, effective vaccines, and behavioral and social-structural interventions.

**Strategies**

- 1.3.1 Engage people at risk for HIV in traditional public health and health care delivery systems, as well as in nontraditional community settings.
- 1.3.2 Scale-up treatment as prevention/U=U by diagnosing all people with HIV, as early as possible, and engaging them in care and treatment to achieve and maintain viral suppression.

- 1.3.3 Make HIV prevention services, including condoms, PrEP, PEP, and SSPs, easier to access and support continued use.
- 1.3.4 Implement culturally competent and linguistically appropriate models and other innovative approaches for delivering HIV prevention services.
- 1.3.5 Support research into the development and evaluation of new HIV prevention modalities and interventions for preventing HIV transmissions in priority populations.

***Objective 1.4 Increase the capacity of health care delivery systems, public health, and the health workforce to prevent and diagnose HIV***

Expanding awareness, access, uptake, and adherence to effective HIV prevention interventions and improving availability of HIV testing for people with undiagnosed infection or ongoing risk of acquisition are actions that fall largely under the purview of the health care and public health systems. Therefore, steps must be taken to strengthen and expand capacity to ensure these services are more commonly available in clinical and nonclinical settings including primary care, community-based organizations, emergency departments, pharmacies (see Box 6), family planning, STD specialty clinics (see Box 3), substance use disorder treatment facilities, and other settings.

One step involves training all staff, ranging from those performing administrative duties to those delivering direct care, on trauma-informed care, cultural competency, stigma and discrimination, and unrecognized bias. Health care services that are respectful of and responsive to the health beliefs, practices, and cultural and linguistic needs of diverse patients can also help bring about positive health outcomes.<sup>76</sup> Another step involves providing resources, incentives, training, and technical assistance to organizations to expand workforce and systems capacity especially in areas with limited availability of prevention and other health care and supportive services.<sup>77</sup>

These efforts must seek to expand the number, variety, diversity, and distribution of health care providers who routinely provide HIV testing, prevention counseling, and linkage to specialty care. A recent study showed that a low proportion of primary care providers were familiar with PEP and PrEP.<sup>78</sup> In some settings, these efforts require addressing the “purview paradox,” a contradiction in which primary care physicians and HIV specialists sometimes consider PrEP to be beyond their purview.<sup>79</sup> Thus, HIV prevention and testing must become the purview of providers of all types who care for patients who may be at risk. Further, health care providers in high HIV prevalence jurisdictions must understand the relationship of epidemiological context and HIV acquisition. In these jurisdictions, providers may be encouraged to offer universal opt-out HIV testing and integrate PrEP screening as a part of routine care for all clients.



### **Box 6**

#### **Pharmacists**

Pharmacists' knowledge and accessibility in nearly every urban and rural community can be leveraged as part of a comprehensive HIV prevention and care strategy to expand access to care and improve population health. As trusted health care professionals, pharmacists develop a strong rapport with patients and may be the key to address current disparities in PrEP-prescribing patterns as well as serve as an essential liaison between patients and other members of the multidisciplinary care team.<sup>80</sup> Pharmacists and community pharmacies can also be utilized to expand rapid, point-of-care HIV testing in communities.<sup>81</sup> In addition, studies have shown that engaging pharmacists as a key player in a care team can increase adherence to ART and maintain viral suppression.<sup>82</sup>

### **Strategies**

- 1.4.1 Provide resources, incentives, training, and technical assistance to expand workforce and systems capacity to provide or link clients to culturally competent and linguistically appropriate HIV testing, prevention, and supportive services especially in areas with shortages that are geographic, population, or facility based.
- 1.4.2 Increase the diversity of the workforce of providers who deliver HIV prevention, testing, and supportive services.
- 1.4.3 Increase the inclusion of paraprofessionals on prevention teams by advancing training, certification, supervision, reimbursement, and team-based care service delivery.
- 1.4.4 Include comprehensive sexual health information in curricula of medical and other health workforce education and training programs.

## **Goal 2: Improve HIV-Related Health Outcomes of People with HIV**

### **The Opportunity**

Starting and staying on HIV treatment as soon as possible following HIV diagnosis is necessary for all people with HIV<sup>83</sup> to improve health outcomes and to prevent HIV transmissions.<sup>84,85</sup> People who start HIV treatment early and remain adherent to antiretroviral medications can live a normal lifespan. Improving the health of people with HIV requires continued focus on the HIV continuum of care to identify gaps and disparities at each step of the continuum to target resources and interventions (see Figure 3).



**Figure 3.** The HIV Care Continuum outlines the steps that people with HIV take from diagnosis to achieving and maintaining viral suppression. Source: HIV.gov.<sup>86</sup>

One common gap is the lack of understanding about the benefits of entering treatment immediately and achieving and maintaining viral suppression. Increasing HIV education and available treatment along with strengthening relationships between patients and providers can play an even larger part in supporting people with HIV to begin, or reengage in, care and treatment and improve long-term health outcomes. Developing and expanding partnerships between providers of HIV specialty care and other providers (such as primary care and other health care providers as well as community organizations, health departments, and others) can leverage existing resources, allowing for seamless transitions between each step of the continuum from diagnosis to achieving and maintaining viral suppression. Implementing evidence-based interventions, innovative uses of technology, and systems changes can support rapid linkage to care and maintenance in treatment for people with HIV. In addition, government, academic, and pharmaceutical industry research has provided simpler, more easily tolerated therapies than the initial generation of effective antiretroviral therapies. Continued advances such as long-acting injectables could result in the introduction of new HIV treatments during the course of this 5-year plan. These new options could help address challenges with adherence to a daily pill regimen.

Several approaches exist to support treatment initiation and adherence as well as retention in care across the continuum, including:

- **Evidenced-based strategies.** Every year evidence-informed best practices are added to the compendia of recommended interventions designed to improve treatment adherence and retention in care. Although interventions are often not a one-size-fits-all approach, health departments, clinics, and community organizations have additional tools to implement and receive a wide-range of adaptations that have worked in different settings and for specific populations. Increasing the use of evidence-based strategies and best practices to reengage people who have fallen out of care, and people never in care, is necessary. Community input coupled with the strategies and interventions that have proven effective are necessary to reach populations out of care and help them achieve viral suppression.
- **Rapid start programs.** Programs focusing on the immediate (7 days after diagnosis or sooner) initiation of ART have demonstrated success and are expanding in communities across the nation. Such “rapid start” or “red carpet” programs require structural or

other changes to improve linkage to care, care coordination, patient navigation, adequate staffing, specialized services, and clinical provider evaluation.

- **Health literacy.** Limited health literacy is associated with poorer health outcomes<sup>87</sup> At all levels further effort is needed to construct organizations, institutions, systems, and a workforce that embrace and implement the concepts and principles of health literacy. Efforts to create more health-literate public and private health systems at the federal, state, and local levels will help patients understand the health care system and the importance of HIV prevention, care, and treatment, and the benefits of viral suppression. This understanding can empower people to participate in these systems and may help to address the pervasive issues of medical mistrust among minority populations. Patient education is a necessary aspect of people-centered care, but it requires systems and providers to end the use of jargon, take the time to educate and explain in plain language, alter websites and brochures, use social media differently, and consider other culturally appropriate ways to deliver key information. Understanding HIV, the importance and benefits of treatment, and the risks of transmission to others can also lead to less stigma and shame, which in turn can lead to increased interactions with the health system and positive health outcomes.<sup>88</sup> Efforts to increase health literacy can also aid in addressing the mistrust of the medical system prevalent among many minority groups because of the historical systemic racism in many health care settings.
- **Comprehensive array of clinical and support services.** Current systems of HIV care and treatment have produced tremendous results, and the nation has more providers treating people with HIV than ever before. Today, people with HIV who are on treatment are living longer and healthier lives; and more than one-half of the people with HIV in the United States are over age 50. Researchers and clinicians are identifying and providing services to address the comorbidities experienced by those aging with HIV. Other key population groups, such as youth, transgender people, people with substance use disorders, or people experiencing homelessness, require different combinations of tailored services to help improve their health outcomes.<sup>89</sup> Work continues to scale-up evidence-based and evidence-informed programs that provide enhanced case and care management for people with HIV specific to their comorbidities or co-occurring conditions such as homelessness, food insecurity, and lack of employment.
- **Capacity of the health care delivery system.** As providers engage and reengage people in care and implement rapid start models, the numbers of people in care will increase. However, workforce needs may not be able to keep pace. The existing highly skilled and dedicated workforce combined with a growing number of Federally Qualified Health Centers treating people with HIV are key to ensuring positive health outcomes. There is an opportunity to examine ways to restructure staff and clinic workflows, implement technological solutions, consolidate paperwork requirements, and examine task sharing to create new efficiencies and revamp the ability to use peers in key places along the HIV care continuum. Continuing to find innovative ways to encourage clinical and nonclinical providers to specialize in HIV care and treatment and engaging primary care providers in care and treatment of HIV, viral hepatitis, and STIs will remain important.

## Challenges

To achieve the goal of improving HIV-related health outcomes, the following challenges must be addressed:

- Health care capacity and workforce shortages in critical geographic areas such as the southern United States and rural areas present challenges to expanding access to HIV care and treatment. These shortages will limit the ability to improve health outcomes for people with HIV. The capacity to provide quality care and treatment is threatened if new technology and new approaches are not embraced.
- Intersecting conditions of stigma, mental health challenges, substance use disorders, and health care lapses due to incarceration require scaling up evidence-based and evidence-informed approaches to care and treatment as well as interventions to engage people out of care, often because of one or more of those conditions. Models of trauma-informed care, which acknowledge the effects of trauma in a person's life and works explicitly not to retraumatize, are still being developed and scaled up around the country.
- HIV-related stigma and other forms of stigma associated with people with HIV continue to impede optimal health outcomes for people with HIV. Increasing cultural humility training among HIV clinicians and even the entire staff of clinics and organizations can lead to increased care engagement and improved health outcomes.
- New and innovative health care delivery strategies and therapeutics are needed to better reach, support, and retain people most vulnerable to non-adherence or dropping out of care. These options are needed to improve HIV treatment outcomes, reduce inequities, and help to prevent onward transmission of HIV. Creative health care delivery strategies implemented by multidisciplinary and/or multisectoral teams are imperative to better reach people with HIV who have not benefited from advances in HIV treatment and care. In addition, development of new drugs for daily ART and innovation in ART delivery, such as long-acting or extended-release injectable drugs, or the use of broadly neutralizing antibodies to treat HIV infection could provide greater options for addressing care and treatment challenges experienced by some people with HIV.
- More diverse community input is needed to inform program implementers' tailoring of evidence-based strategies to meet the needs of particular communities and populations. Engagement of people with HIV has increased over the years and enhanced our understanding of effective interventions and added to our base of implementation science; however, more must be done to understand the lived experiences and needs of communities.

## Summary of Objectives

A concerted national effort to engage people with HIV in care is essential to achieving the HIV Plan's vision. The following steps are critical to achieving success:

- 2.1 Link people to care immediately after diagnosis and provide low-barrier access to HIV treatment.

- 2.2 Identify, engage, or reengage people with HIV who are not in care or not virally suppressed.
- 2.3 Increase retention in care and adherence to HIV treatment to achieve and maintain long-term viral suppression.
- 2.4 Increase the capacity of the public health, health care delivery systems, and the health care workforce to effectively identify, diagnose, and provide holistic care and treatment for people with HIV.

## Indicators of Progress

Working together to pursue these objectives, the nation can achieve the following targets by 2025:

- Indicator 5 Increase linkage to care within 1 month of diagnosis to 95% from a 2017 baseline of 77.8%.
- Indicator 6 Increase viral suppression among people with diagnosed HIV to 95% from a 2017 baseline of 63.1%.

## Objectives and Strategies

### ***Objective 2.1 Link people to care rapidly after diagnosis and provide low-barrier access to HIV treatment***

Achieving improved health outcomes for people with HIV begins with ensuring they are promptly linked to effective HIV care and treatment upon diagnosis. Linkage to HIV care and treatment immediately or as early as possible following HIV diagnosis leads to increased rates of retention in care and ongoing viral suppression.<sup>90,91,92</sup> Programs must continue to build capacity and reduce facility-based and government-based and administrative barriers so that rapid linkage to care is the standard across the United States, allowing people to begin to receive care and treatment within hours or days of their diagnosis no matter where they live. This may require that some clinics and health departments work to reduce barriers to initiating care and treatment. Red carpet and warm-handoff programs provide low-barrier access by linking newly diagnosed people to care and treatment services, often within the same day.<sup>93,94</sup> For example, these programs, which often integrate robust navigation services, may schedule medical appointments on behalf of the patient, drive newly diagnosed people who lack transportation from an HIV testing site to a trusted clinic, or help people who need assistance complete required forms and paperwork.

### **Strategies**

- 2.1.1 Increase linkage to HIV medical care within 30 days of diagnosis, as early as the same day.
- 2.1.2 Provide same-day initiation or rapid start of antiretroviral therapy for those who are able to take it.

***Objective 2.2 Identify, engage, or reengage people with HIV who are not in care or not virally suppressed***

Although improvements have been made over time, only 58%<sup>95</sup> of people with diagnosed HIV are retained in care in 2018. In addition, 24% of people with HIV who are not receiving care account for 43% of new infections.<sup>96</sup> This population often needs highly tailored approaches to identify, conduct outreach, ascertain barriers to care, and create individualized care plans to facilitate entry into care, followed by navigation and other services to support retention in care. New solutions must be identified to engage and reengage populations that, to date, systems have been unsuccessful in reaching and retaining in care. Feedback and evaluations of services from people with HIV is critical to understanding and improving how services are received by those who need them the most.

Data-to-care models based on solid, interwoven data points, and other evidence-based strategies focused on finding people not in care and people who are not yet virally suppressed, are proven strategies to reengage people over the long term.<sup>97</sup> Disparate data systems must first be linked to identify people who have tested HIV positive but do not have recent indicators of quality care, people who have fallen out of care, people in care who lack timely prescription refills, and people in care who have not achieved or maintained viral suppression. Entering into formal data sharing agreements ensures that the uses of the data, responsibilities, and protections are clearly delineated for all parties. Such agreements are needed among state public health surveillance systems, state and local health departments, tribes, tribal organizations, urban Indian organizations, the RWHAP, federally funded health centers of all types, community-based organizations, HOPWA programs, Medicaid, Departments of Corrections, pharmacies and pharmacy benefits managers, and other components of the health system serving people with HIV in a geographic area.

**Strategies**

- 2.2.1 Expand uptake of data-to-care models using data sharing agreements, integration and use of surveillance, clinical services, pharmacy, and social/support services data to identify and engage people not in care or not virally suppressed.
- 2.2.2 Identify and address barriers for people who have never engaged in care or who have fallen out of care.

***Objective 2.3 Increase retention in care and adherence to HIV treatment to achieve and maintain long-term viral suppression***

People with HIV need ongoing support to stay in care and maintain the adherence to ART that is needed to achieve and maintain viral suppression.<sup>98</sup> Approaches to increase retention in care include higher levels of personal contact with an patient navigator or community health worker to ensure care receipt; reminders about appointments and calls to discuss why appointments were missed; patient navigation services designed to help patients identify, apply for, and receive necessary services to bolster medical care; medical case management; financial incentives; and low-threshold care including walk-in appointments and on-site pharmacies.<sup>99,100</sup> Among adherence interventions are those designed to ensure the efficiency of receiving and

taking medications such as 90-day prescriptions, options for medication pick-up or receipt by mail, and use of technology such as medication reminder apps, as well as adherence counseling. Other interventions must address common barriers to adherence and retention, such as providing co-located treatment for HIV and mental health and substance use disorders.

Ongoing research in a variety of disciplines is also needed to improve care retention, medication adherence, and sustained viral suppression. Research topics include next-generation therapeutics that are longer-acting, less toxic, and have fewer side effects and complications, as well as behavioral and social sciences to better understand and address barriers to treatment uptake and adherence and to address disparities. Biomedical, behavioral, and implementation research approaches can be combined to improve viral suppression, reduce HIV transmission, and improve health for all affected populations. Basic, translational, and clinical research can increase understanding of HIV-related comorbidities, co-infections, and complications, which can interfere with retention, adherence, or viral suppression. New models of care, especially those that integrate HIV prevention, care, and supportive services, are needed for populations for which existing interventions have not yet proven successful.

## **Strategies**

- 2.3.1 Support the transition of health care systems, organizations, and clients to become more health literate in the provision of HIV prevention, care, and treatment services.
- 2.3.2 Develop and implement effective, evidence-based, or evidence-informed interventions and supportive services that improve retention in care.
- 2.3.3 Develop and implement effective, evidence-based, or evidence-informed treatment interventions, such as HIV telemedicine, accessible pharmacy services, community health workers and peer navigators, and others, that improve convenience and access, facilitate adherence, and increase achievement and maintenance of viral suppression.
- 2.3.4 Support ongoing clinical, behavioral, and other research to support retention in care, medication adherence, and durable viral suppression.

### ***Objective 2.4 Increase the capacity of the public health, health care delivery systems, and the health care workforce to effectively identify, diagnose, and provide holistic care and treatment for people with HIV***

Increasing viral suppression requires expanded capacity of public health, health care delivery systems, and the health workforce to be flexible and responsive to the needs of people with HIV. Increasing the diversity of providers offering HIV prevention and care services is one important capacity-building approach. In addition, publicly funded organizations can increase the diversity of their workforce and provide training to ensure culturally competent care and knowledge of best practices for caring for people from diverse backgrounds<sup>101</sup>. Health care systems can also take advantage of different types of health professionals such as nurses, advanced practice providers, and behavioral health specialists to ensure that any workforce shortages can be addressed. Innovative staffing models can also build capacity to better meet the needs of people with HIV including the use of community health workers, linkage to care

and reengagement specialist teams, task sharing, integrated care teams, and use of peer mentors.<sup>102</sup>

In addition to the RWHAP, patient-centered medical homes and health homes create opportunities to address medical and support service needs of people with HIV through coordinated, team-based, and accessible services including co-location of services. Similar to HIV prevention, expanding care and treatment capacity must also include delivery of additional resources, incentives, training, and technical assistance to existing systems as well as development of new systems in areas with limited availability. For example, establishing new partnerships and advancing telehealth arrangements to expand access to the professionals with specialized backgrounds should be explored to increase access to services in geographically underserved areas. The design of programs to reach and engage people out of care, people never in care, and people who are challenged to stay in care may require novel approaches, services, and partnerships to address issues of trauma, poverty, and associated conditions that are obstacles to care. Systems should also offer low-threshold capacity-building resources to organizations led and staffed by local members of the priority populations to increase their ability to apply for and receive grants and foundation funds to increase the number of services being provided in and by affected communities.

### **Strategies**

- 2.4.1 Provide resources, value-based and other incentives, training, and technical assistance to expand workforce and systems capacity to provide or link clients to culturally competent and linguistically appropriate care, treatment, and supportive services especially in areas with shortages that are geographic, population, or facility based.
- 2.4.2 Increase diversity of the workforce of providers who deliver HIV and supportive services.
- 2.4.3 Increase inclusion of paraprofessionals on teams by advancing training, certification, supervision, reimbursement, and team functioning to assist with screening/management of HIV, STIs, viral hepatitis, substance use disorder and other behavioral health conditions.

## **Goal 3: Reduce HIV-Related Disparities and Health Inequities**

### **The Opportunity**

Advances in HIV prevention, testing, care, treatment, and supportive services have led to significant declines in new HIV transmissions and deaths. They also make it possible for the nation to envision ending the HIV epidemic. However, realizing this vision requires that every person across the United States with or at risk for HIV has access to high-quality and culturally competent prevention, diagnostic, care, treatment, and supportive services that are non-stigmatizing, non-discriminatory, inclusive, and responsive to their needs. In order to successfully achieve the goal of ending the HIV epidemic, issues such as discrimination and systemic racism that contribute to differences in health care quality and access, and lead to ongoing disparities among racial, ethnic, and sexual and gender minority populations, must be addressed.



Reducing these disparities entails focusing on the needs of disproportionately affected populations, supporting racial justice, combating HIV-related stigma and discrimination, providing leadership opportunities for people with and at risk for HIV, and addressing social determinants of health and co-occurring conditions to reduce health inequities and disparities. Therefore, the HIV Plan fully recognizes that the national HIV goals can only be achieved through collaborative efforts at the federal, state, and local levels that focus on reducing HIV-related disparities and by ongoing commitment to understand and address the central factors that create HIV inequities.

In recent years, the nation and individual states have made progress in this area. For example:

- The RWHAP significantly reduced viral suppression disparities among client populations, particularly women, transgender people, youths, Blacks or African Americans, and people with unstable housing. Overall, 87% of clients receiving medical care in the RWHAP were virally suppressed in 2018. From 2010 to 2018, the gap between male and female clients decreased from 5 percentage points to <1 percentage point. In addition, the gap between male and transgender clients decreased from 9 percentage points to 6 percentage points. Similarly, the disparity between viral suppression rates in Black clients and white clients was 13 percentage points in 2010 but 7 percentage points in 2018.<sup>103</sup> The Health Resources Service Administration (HRSA) and its RWHAP recipients have continued to use these data to drive programs and decision making.
- From 2015 to 2018 the United States saw reductions of disparities in the rates of new HIV diagnoses among gay and bisexual men, Black gay and bisexual men, and Black women.
- Since 2014, at least five states (CA, CO, IA, MI, NC) have modernized their HIV criminal exposure laws. Changes have included removing HIV prevention issues from the criminal code and including them instead under disease control regulations, requiring intent to transmit or actual HIV transmission, or providing for defenses for taking measures to prevent transmission.

## Challenges

Ongoing disparities persist across populations and geographic areas in the United States (see Priority Populations section). To achieve the goal of reducing HIV-related disparities and health inequities, the following challenges, among others, must be addressed:

- The prevalence of HIV is more than 150 times higher in gay, bisexual, and other men who have sex with men and in transgender women than heterosexual men and women.<sup>104</sup>
- One-half of all new HIV infections occurred in the southern United States in 2018, despite only accounting for 38% of the U.S. population.<sup>105</sup>
- Among the estimated 161,800 people with undiagnosed HIV infection, 42% are among Blacks, 28% among Latinos, 24% among Whites, and 6% among other racial and ethnic groups.<sup>106</sup>
- Disparities are also evident in the proportion of people with HIV with viral suppression; in 2018, 60% of Blacks, 64% of Latinos, and 71% of whites with diagnosed HIV were virally suppressed.<sup>107</sup> Further, among RWHAP clients, transgender clients were virally suppressed

at a rate of 81.8%, which is lower than the national average of 87.1% for all RWHAP clients.<sup>108</sup>

- Significant disparities exist in PrEP uptake by age, race, gender, and geographic location.<sup>109,110</sup> In 2018, PrEP coverage among whites was seven times that among Blacks and four times that among Latinos.<sup>111</sup> In addition, only 7% of women with indications for PrEP received a prescription in 2018 versus 21% of males. By age, the lowest level of PrEP coverage was among people aged 16–24 (12%).<sup>112</sup>

Research to better understand and address such disparities and inequalities—including through community-based participatory research methods—can help improve HIV testing and engagement and retention in prevention and care services, and to enhance the health and well-being of people with and at risk for HIV in underserved and marginalized communities.

Another consideration is appropriately responding to HIV among groups that represent a small share of both the population and of HIV infections. Although it is vital to focus national efforts in communities with the highest burden, HIV prevention, care, and treatment must continue to be supported in localities with concentrations of groups such as Asian Americans and Pacific Islanders and American Indians/Alaska Natives, and informed by the best available data.

### **A Focus on Health Inequities**

Certain racial and ethnic minority groups have higher rates of HIV incidence, prevalence, poor health outcomes (lower viral suppression), and mortality, compared with rates for non-Hispanic whites.<sup>113</sup> Health disparities can stem from inequities in the social determinants of health and highlight the need to focus on not only HIV prevention and care efforts, but also how programs, practices, and policies affect racial and ethnic minority communities. Racial and ethnic minority groups are more likely to be uninsured compared to non-Hispanic whites,<sup>114</sup> limiting their access to health care. Sexual and gender minorities also face health inequities. Sexual and gender minorities have lower levels of health insurance and access to regular health care compared to their heterosexual counterparts.<sup>115,116</sup> Barriers to health care access include lack of transportation and childcare, inability to take time off from work, communication and language barriers, racism, discrimination, and lack of trust in health care providers.<sup>117</sup>

The HIV Plan recognizes the importance of addressing social determinants of health to improve health outcomes for racial, ethnic, and sexual and gender minority groups. By working to establish policies and programs that positively influence social and economic conditions and by supporting changes in individual behavior, health can be improved and sustained and disparities reduced. Improving the conditions in which we live, learn, work, play, age, and worship and the quality of our relationships will create a healthier population, society, and workforce.<sup>118</sup> Application of a “health in all policies” strategy, a cross-sector collaborative approach to integrating health into policies and programs<sup>119,120</sup> to close the health gaps, can be implemented across all areas and levels of government and in the community to foster achievement of these aims.

## Summary of Objectives

The following objectives are critical to reducing HIV-related disparities and health inequities:

- 3.1 Reduce HIV-related stigma and discrimination
- 3.2 Reduce disparities in new HIV infections, in knowledge of status, and along the HIV care continuum
- 3.3 Engage, employ, and provide public leadership opportunities at all levels for people with and at risk for HIV
- 3.4 Address social determinants of health and co-occurring conditions

## Indicators of Progress

Working together to pursue these objectives, the nation can achieve the following targets by 2025:

- Indicator 7 Decrease stigma among people with diagnosed HIV by 50% from a 2018 baseline median score of 31.2 on a 10-item questionnaire.
- Indicator 8 Reduce homelessness among people with diagnosed HIV by 50% from a 2017 baseline of 9.1%.

In addition to these indicators, the HIV Plan identifies a disparity indicator to measure progress toward reducing significant HIV-related disparities. Core indicator 6 on viral suppression serves as this disparity indicator and is stratified by each of the priority populations identified in the HIV Plan:

- Indicator 6a Increase viral suppression among MSM diagnosed with HIV to 95% from a 2017 baseline of 66.1%.
- Indicator 6b Increase viral suppression among African American/Black MSM diagnosed with HIV to 95% from a 2017 baseline of 58.4%.
- Indicator 6c Increase viral suppression among Hispanic/Latino MSM diagnosed with HIV to 95% from a 2017 baseline of 64.9%.
- Indicator 6d Increase viral suppression among American Indian/Alaska Native MSM diagnosed with HIV to 95% from a 2017 baseline of 67.3%.
- Indicator 6e Increase viral suppression among Black women diagnosed with HIV to 95% from a 2017 baseline of 59.3%.
- Indicator 6f Increase viral suppression among transgender women in HIV medical care to 95% from a 2017 baseline of 80.5%.
- Indicator 6g Increase viral suppression among people who inject drugs diagnosed with HIV to 95% from a 2017 baseline of 54.9%.
- Indicator 6h Increase viral suppression among youth aged 13-24 diagnosed with HIV to 95% from a 2017 baseline of 57.1%.

## Objectives and Strategies

### ***Objective 3.1 Reduce HIV-related stigma and discrimination.***

Many people with HIV experience stigma and discrimination because of their HIV status. Stigma is an attitude of disapproval and discontent toward a person or group because of the presence of an attribute perceived as undesirable. Discrimination is often a consequence of stigma, occurring when unfair and often unlawful actions are taken against people based on their belonging to a particular stigmatized group. HIV stigma and discrimination can pose complex barriers for people with or at risk for HIV, preventing them from seeking prevention tools, learning their HIV status, and accessing medical care, treatment, and supportive services. Stakeholders and organizations from all sectors of society, including government, faith communities, businesses, schools, and others, must work to combat stigma and discrimination in order to reduce new transmissions and improve health outcomes for people with HIV.

HIV-specific criminal laws perpetuate HIV-related stigma and discrimination. Some of these laws criminalize behavior that poses a low or negligible risk for transmitting HIV and apply regardless of actual HIV transmission. Agreement on the need to reform HIV criminalization laws is increasing. Such efforts must ensure that all state and federal criminal laws and policies regarding HIV transmission and prevention are scientifically based and reflect well-tested and effective public health strategies, and that legislators, prosecutors, and people in law enforcement have an accurate understanding of HIV transmission risks (see Box 7).

Discriminatory practices and minority stress also play a role in health outcomes. Public health and health care systems should seek to be respectful of and responsive to the health beliefs, practices, and cultural and language needs of diverse patients.<sup>121</sup> At the community level, stakeholders and advocates should be equipped with the knowledge and tools to address misconceptions and change norms that are associated with HIV-related stigma and discrimination. At the individual level, multiple approaches to address interpersonal and internalized stigma should be available to people with and at risk for HIV as well as their family, friends, health care providers, and others.

HIV-related stigma and discrimination and their effects on people with and at risk for HIV should not be viewed in a silo. They come in different forms and are often complicated when people also experience stigma and discrimination related to race and ethnicity, sexual orientation or sexual behavior, gender identity, substance use, mental health, homelessness, socioeconomic circumstance, or sex work.<sup>122,123</sup> Additional research, innovative solutions, and replication of global efforts to address the drivers, facilitators, and manifestations of stigma are needed.<sup>124</sup> These solutions should be integrated into the delivery of services that are responsive and sensitive to the unique needs of populations that face intersectional stigmas and intersectional discrimination.

## Strategies

- 3.1.1 Strengthen enforcement of civil rights laws (including language access services and disability rights), reform state HIV criminalization laws, and assist states in protecting

people with HIV from violence, retaliation, and discrimination associated with HIV status, homophobia, transphobia, xenophobia, racism, and sexism.

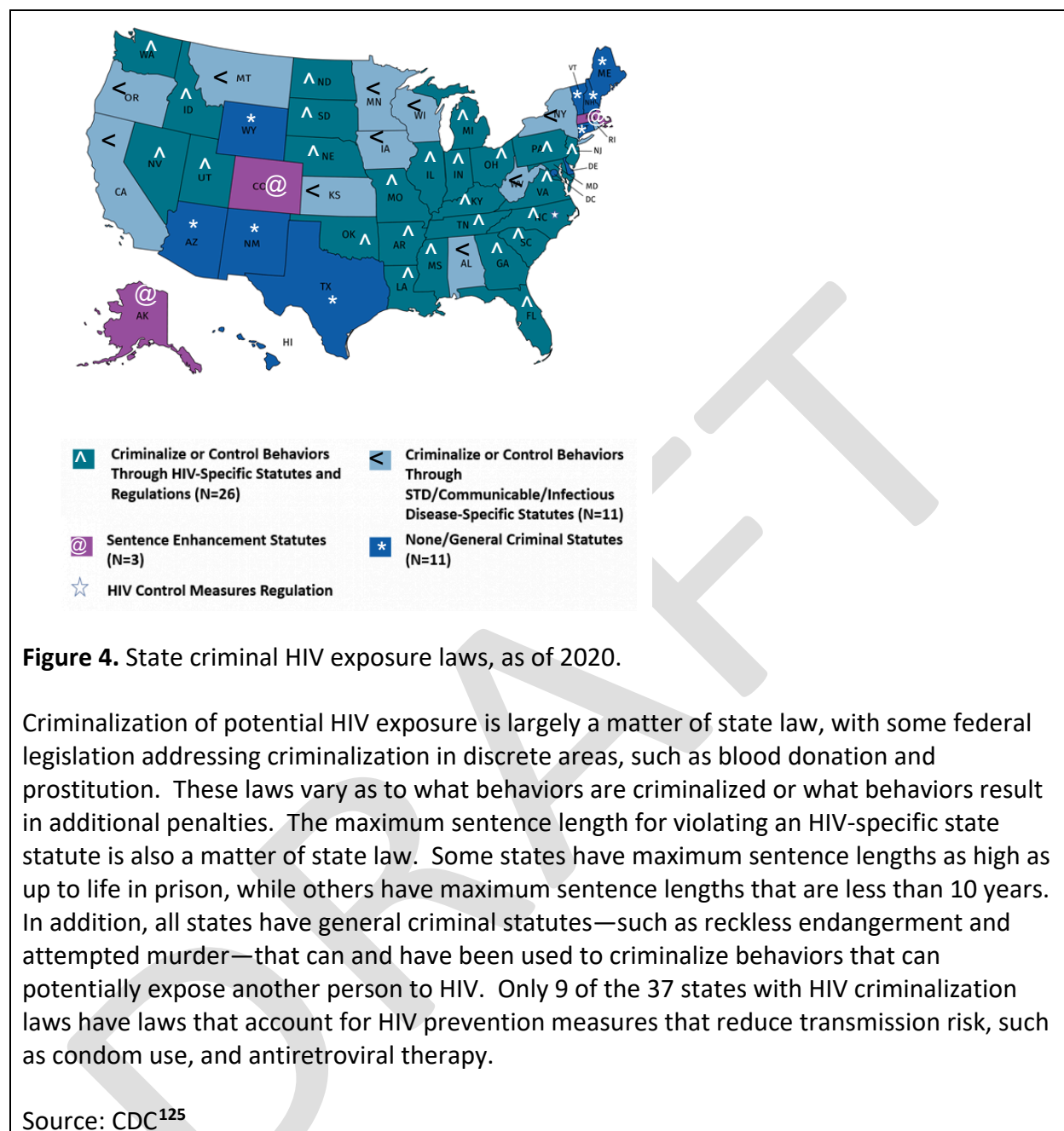
- 3.1.2 Ensure that health care professionals and front-line staff complete education and training on stigma, discrimination, and unrecognized bias toward populations at risk for and with HIV.
- 3.1.3 Support communities in efforts to address misconceptions and reduce HIV-related stigma and other stigmas that negatively affect HIV outcomes.

**Box 7**  
**State HIV Criminalization Laws**

According to the Centers for Disease Control and Prevention (CDC), as of 2020, [37 states have laws that criminalize HIV exposure](#). Some of these laws criminalize [behavior that cannot transmit HIV](#) and apply regardless of actual transmission (see Figure 4).

CDC assessed the laws for the 50 states and the District of Columbia and grouped them into five categories:

1. HIV-specific laws that criminalize or control behaviors that can potentially expose another person to HIV.
2. STD/communicable/infectious disease-specific laws that criminalize or control behaviors that can potentially expose another person to those diseases, which might include HIV.
3. Sentence enhancement laws specific to HIV that do not criminalize a behavior but increase the sentence length when a person with HIV commits certain crimes.
4. Sentence enhancement laws specific to STDs that do not criminalize a behavior but increase the sentence length when a person with an STD, which might include HIV, commits certain crimes.
5. No specific criminalization laws.



**Objective 3.2 Reduce disparities in new HIV infections, knowledge of status, and along the HIV care continuum**

Monitoring of progress toward HIV targets should identify, raise awareness of, and inform appropriately tailored interventions to respond to ongoing and emerging disparities among various populations and in geographic areas. With improved mechanisms to measure, monitor, and report data in a timely manner and enhanced quality, accessibility, sharing, and use of data (see Goal 4), governments and organizations can more quickly identify disparities and direct resources appropriately.

When disparities are identified, tailored interventions must be developed in partnership with the affected populations. Specific populations may have unique or specialized needs and face challenges that require more tailored approaches based on sociodemographic, geographic, cultural, and other characteristics that may be associated with HIV risk or health-promoting behaviors.

### **Strategies**

- 3.2.1 Increase awareness of HIV-related disparities through data collection, analysis, and dissemination of findings.
- 3.2.2 Develop new and scale up effective, evidence-based or evidence-informed interventions to improve health outcomes among priority populations and other populations or geographic areas experiencing disparities.

### ***Objective 3.3 Engage, employ, and provide public leadership opportunities at all levels for people with and at risk for HIV***

Achieving the goals of this plan and ending the HIV epidemic demand a whole-of-society effort that must include and elevate the diverse voices and experiences of people with and at risk for HIV, as well as their partners, families, and communities. Jurisdictions and organizations must meaningfully engage and employ people with and at risk for HIV in the development, implementation, monitoring, and assessment of policies, programs, and services. Their experiences can inform efforts to remove barriers that hinder access to needed information or services and to design services that meet unique needs. Governments and other institutions working to meaningfully engage people with and at risk for HIV must develop partnerships with networks of people with and at risk for HIV and other organizations that engage and serve populations most affected by HIV in each community, identifying ways to optimize messages and services and to combat stigma and discrimination.

### **Strategies**

- 3.3.1 Create and promote public leadership opportunities for people with and at risk for HIV.
- 3.3.2 Work with communities to reframe HIV services and HIV-related messaging to be less stigmatizing of people and behaviors.

### ***Objective 3.4 Address social determinants of health and co-occurring conditions that exacerbate HIV-related disparities***

Addressing social determinants of health and other co-occurring conditions, such as noncommunicable comorbidities and co-infections, is essential to reducing HIV-related health disparities and inequities. For many people with and at risk for HIV, addressing basic and immediate needs, such as safety and/or shelter, takes precedence over HIV testing, prevention, care, or treatment. Lack of continuous health insurance coverage, inability to pay for care and treatment, inadequate housing, food insecurity, under- and unemployment, medical mistrust, provider misconceptions and bias, low health literacy, language barriers, and involvement in the justice system all act as barriers to improved HIV outcomes. In other cases, people may be interested in HIV services, but shortages of a skilled and competent workforce or lack of nearby

HIV services hinders their ability to access them. These limitations are made worse by inadequate infrastructure, including limited or no broadband internet services and lack of public transportation.<sup>126</sup>

Ending the HIV epidemic requires recognition of the need for interventions and pooled resources to address upstream factors often rooted in racism and other social and structural barriers.<sup>127</sup> Programs could destigmatize HIV services, increase service utilization, and improve health outcomes by integrating them in multi-disease, community-based testing, care, and treatment models.<sup>128</sup> Ultimately, the success of biomedical and behavioral interventions may be directly impacted by whether structural interventions are effectively integrated to support them. Such integration supports person-centered care that considers all of the patient's needs including those that vary across the life span, not only those related to HIV (see Box 8). Integration also includes establishing additional opportunities to engage in partnerships that make it possible to address clients' unmet needs, maximize reach, and promote efficiency and sustainability.

#### **Box 8**

##### **Addressing HIV Prevention and Care Across the Life Span**

Responsive services that recognize and support variable and episodic needs across the lifespan are necessary to best support people with or at risk for HIV. Youth experience worse HIV outcomes on status awareness, PrEP uptake, and the HIV care continuum. Schools play an important role in the primary prevention of HIV in youth by offering on-site sexual health services through school-based health centers and school nurses, or in collaboration with community partners that provide services, such as periodic, school-wide HIV screening events or mobile clinics. Schools that cannot provide direct sexual health services can establish integrated referral systems that link students to youth-friendly providers in the community. There is a need for both primary prevention approaches and HIV care models that are tailored to groups of youth at disproportionate risk of HIV, including young gay, bisexual, and other men who have sex with men and people who inject drugs.

Similarly, tailored approaches are required to meet the HIV prevention, testing, and care needs of older adults. Older Americans are more likely than younger Americans to be diagnosed with HIV infection late in the course of their disease, meaning they get a late start to treatment and possibly experience more damage to their immune system. Thanks to effective HIV care and treatment, people with HIV who are diagnosed early in their infection, and who get and stay on ART, can keep the virus suppressed and live long and healthy lives. As a result, the number of older adults with HIV is growing; more than one-half of people with diagnosed HIV in the United States were aged 50 and older in 2018.<sup>129</sup> Older people with HIV, especially long-term survivors, face different health and psychosocial issues than their younger counterparts and thus require appropriately tailored HIV care and treatment services. These unique needs include screening for, assessing, and treating HIV-associated non-AIDS conditions as well as age-associated diseases for which people with HIV are at increased risk, and addressing social challenges such as social isolation or depression faced by



many people aging with HIV. As this population continues to age, it will be necessary to research, develop, and implement effective interventions, and adapt and appropriately fund systems of care, with attention to comorbidities related to aging.

Sources: Mandsager et al.<sup>130</sup>, McNeil and Rowe<sup>131</sup>

### Strategies

- 3.4.1 Develop whole-person systems of care that address co-occurring conditions for people with and at risk for HIV.
- 3.4.2 Adopt policies that reduce cost, payment, and coverage barriers to improve the delivery and receipt of services for people with and at risk for HIV.
- 3.4.3 Improve screening and linkage to services for people with and at risk for HIV who are diagnosed with and/or are receiving services for co-occurring conditions.
- 3.4.4 Develop and implement effective, evidence-based, or evidence-informed interventions that address social and structural determinants of health among people with and at risk for HIV including lack of continuous health care coverage, HIV-related stigma and discrimination in public health and health care systems, medical mistrust, inadequate housing and transportation, food insecurity, unemployment, low health literacy, and involvement with the justice system.
- 3.4.5 Develop new and scale up effective, evidence-based or evidence-informed interventions to improve health outcomes and quality of life for people across the lifespan including youth and people over age 50 with or at risk for HIV, and long-term survivors.
- 3.4.6 Develop new and scale up effective, evidence-based or evidence-informed interventions that address intersecting factors of HIV, trauma and violence, and gender especially among cis- and transgender women and gay and bisexual men.

## Goal 4: Achieve Integrated, Coordinated Efforts That Address the HIV Epidemic among All Partners and Stakeholders

### The Opportunity

Since its release in 2010, the NHAS has inspired all sectors of society—including government agencies, nongovernmental organizations, and the private sector—to better coordinate the nation’s response to the HIV epidemic. This iteration of the HIV Plan continues to recognize the importance of more integrated, coordinated efforts.

Even greater coordination is possible and is essential to ending the HIV epidemic in America. Opportunities include partnerships to meet unmet needs, maximize reach, share best practices to overcoming common challenges, leverage available data, and promote efficiency and sustainability. Greater integration of services is crucial to meeting the nation’s HIV testing, prevention, care, treatment, and supportive services needs, especially for people living in under-resourced areas and/or who are not effectively reached and engaged by existing programs and services.

It is also essential to address the syndemic of HIV, STIs, viral hepatitis, and substance use and mental health disorders. Collaborative efforts cannot be a one-way street, only benefiting the goals of HIV programs; rather, they should address how HIV programs can facilitate the attainment of other programs' goals that contribute to the overall health and well-being of the populations served.

Activities that exemplify improved integration and coordination of efforts have included the following:

- **CDC and HRSA's 2015 joint guidance to health departments and planning groups that they fund to develop a single, multi-year Integrated HIV Prevention and Care Plan.** This guidance satisfied the legislative and programmatic requirements of both agencies and served as a jurisdictional HIV/AIDS Strategy.<sup>132</sup> The integrated plan reduced duplicative planning and reporting efforts experienced by grantees; streamlined the work of health department staff and HIV planning groups; and promoted improved collaboration and coordination in the use of data to inform HIV prevention and care program planning, resource allocation, evaluation, and continuous quality improvement.
- **Integration of CDC funding for health department HIV surveillance and prevention.** In 2018, CDC renewed and strengthened its flagship funding program to support HIV surveillance and prevention efforts led by state, territorial, and local health departments with 5-year funding awards that integrated HIV surveillance and prevention programs for the first time. Integration helps health departments plan and execute more efficient, coordinated, and data-driven prevention efforts.
- **Pilot programs that have demonstrated the effectiveness of collaborative data-to-care (D2C) approaches.** Using HIV surveillance and other data to improve continuity of HIV care, these pilot programs integrate public health data and health care delivery to identify people with an HIV diagnosis who are not engaged in medical care or other services and facilitate linkage to care. The pilots have demonstrated effectiveness in achieving their goal of increasing the number of people with HIV who are reengaged in care and virally suppressed.<sup>133</sup>
- **Integration of data across programs to improve design and delivery of services.** HRSA and the Department of Housing and Urban Development (HUD) collaborated to better coordinate HIV care and housing services through data integration and to ultimately improve health outcomes along the HIV care continuum.<sup>134</sup>
- **A growing awareness of the need to better integrate services for populations vulnerable to multiple health concerns.** For example, a 2019 National Academies of Sciences, Engineering, and Medicine workshop highlighted the importance of addressing infectious diseases as part of an improved, comprehensive opioid response and noted that separately administered substance use disorder treatment and infectious disease services often inhibit comprehensive care.<sup>135</sup>
- **Use of new HIV surveillance techniques.** CDC has supported several jurisdictions to detect possible HIV infection clusters more quickly and then coordinate swift responses

across programs to get needed prevention and treatment services to people who need them.

- **Provisions in the 21st Century Cures Act on the interoperability of health information.** These provisions, including those related to social determinants of health, put the patient at the center of care and promote secure health information exchange to enable improved coordination, targeting of resources, and research that can support achieving the Plan's goals.
- **Partnerships with Medicaid programs.** Through these partnerships, several state HIV programs have been able to implement performance measures that reward providers with increased numbers of patients who have achieved and maintained viral suppression.
- **Enhanced efforts to integrate services and disciplines in healthcare delivery.** In recent years greater emphasis has been placed on integrating behavioral health (mental health and substance use disorder) services and primary care and vice versa. Expanding availability of medication-assisted treatment for substance use disorder in primary care settings is one example. Similarly, to serve the growing population of people with HIV over age 50, more clinics are adopting a geriatric multidisciplinary approach to health care, addressing the domains of medical problems, cognitive and functional abilities, psychiatric disorders, and social circumstances.<sup>136</sup>

## The Challenges

To realize the goal of achieving more integrated, coordinated efforts that address the HIV epidemic among all partners and stakeholders, the following challenges must be addressed:

- Rising rates of substance use, including the ongoing opioid epidemic, have resulted in concurrent infectious disease epidemics. This trend threatens to reverse substantial progress achieved in reducing new HIV transmissions among people who inject drugs and people who use substances. Better integrated responses to the syndemic of HIV, STIs, viral hepatitis, and substance use and mental health disorders are needed.
- The experience of enhanced coordination at the federal level must expand to include other relevant departments and agencies. It must also cascade to the state, tribal, and local levels and include partners such as law enforcement, health care providers, pharmacists, community health workers, aging and social services providers, schools, and public and private payers.
- There is a need to support jurisdictions and organizations to develop, implement, monitor, and update locally tailored plans to end the HIV epidemic that are informed by community input and that expand engagement of partners and sectors to meet the distinct needs of populations with and at risk for HIV.
- The necessary focus on COVID-19 has diverted attention and strained capacity in state and local health departments and community-based organizations.
- Fee-for-service and other payment models do not adequately support integrated, comprehensive health care delivery models, such as behavioral health and medical care integration, patient-centered medical homes, integration with support services, and care coordination. Grant funding to support pilots or demonstrations of such integrated

models is limited and time-bound. Scaling up and sustaining these effective care delivery models require evolutions in public and private payer systems.

## Summary of Objectives

The following objectives are critical to achieving integrated, coordinated efforts that address the HIV epidemic among all partners and stakeholders:

- 4.1 Integrate programs to address the syndemic of HIV, STIs, viral hepatitis, and substance use and mental health disorders.
- 4.2 Increase coordination of HIV programs across all levels of government (federal, state, tribal, local, and territorial) and with public and private health care payers, faith-based and community-based organizations, the private sector, academic partners, and the community.
- 4.3 Enhance the quality, accessibility, sharing, and use of data, including HIV prevention and care continuum data and social determinants of health data.
- 4.4 Identify, evaluate, and scale up best practices including through translational, implementation, and communication science research
- 4.5 Improve mechanisms to measure, monitor, evaluate, and use the information to report progress and course correct as needed in order to achieve the HIV Plan goals.

## Objectives and Strategies

### ***Objective 4.1 Integrate programs to address the syndemic of HIV, STIs, viral hepatitis, and substance use and mental health disorders***

The syndemic of HIV, STIs, viral hepatitis, and substance use and mental health disorders in the United States highlights overlapping risk factors as well as associations with social determinants of health such as poverty, lack of health insurance, housing instability, and other related inequities. An effective response to the syndemic requires integration of programs to enable increased flexibility in utilization of allocated resources; better coordinated policy and program planning, development, and delivery; and rapid adjustment to new data or scientific advances. For such integration to occur, major shifts in policy, systems, and societal norms and attitudes must occur, and the willingness to explore new and nontraditional approaches and strategies must increase.

A National Academies report recommends that the syndemic be addressed via integrated medical services<sup>137</sup> in place of often siloed services. Opportunities are missed every day to test people for multiple infections and to scale up services in settings where people at risk receive other services. These missed opportunities translate directly into lost time and resources and may result in harm to people who remain undiagnosed, untreated, and at risk of severe outcomes or of transmitting the infection to others. A reciprocal, integrated approach in our responses to infectious diseases, the opioid crisis, and substance use and mental health disorders that puts patients first through a status neutral and no-wrong-door approach will maximize their ability to access services that meet their health needs. For example, HIV testing programs can identify opportunities to screen for other STIs, viral hepatitis, substance use, and intimate partner violence (IPV). Similarly, STI, substance use disorder treatment, and viral

hepatitis programs can integrate HIV testing and linkage to relevant HIV prevention or care services, as appropriate.

### **Strategies**

- 4.1.1 Expand outreach and education efforts addressing issues that intersect HIV such as intimate partner violence, STIs, viral hepatitis, and substance use and mental health disorders.
- 4.1.2 Implement a no-wrong-door approach to screening and linkage to services for HIV, STIs, viral hepatitis, and substance use and mental health disorders across programs.
- 4.1.3 Identify and address funding, policy, data, workforce capacity, and programmatic barriers to effectively address the syndemic.
- 4.1.4 Coordinate and align strategic planning efforts on HIV, STIs, viral hepatitis, substance use disorders, and mental health care across national, state, and local partners.

### ***Objective 4.2 Increase coordination of HIV programs across all levels of government (federal, state, tribal, local, and territorial) and with public and private health care payers, faith-based and community-based organizations, the private sector, academic partners, and the community***

Ending the HIV epidemic requires a whole-of-society approach. Increasing coordination across all sectors of society enables better delivery of services and resources to people with and at risk for HIV. Likewise, establishing trusted partnerships allows for coalitions to develop, implement, and regularly evaluate and update policies and programs that address the social, economic, and political environments that shape and constrain individual, community, and societal outcomes.

Increased coordination at the federal level includes expanding the partners engaged in the federal government's HIV response. Such expansion includes leveraging existing programs whose primary purpose may not be HIV services, but which could provide supportive services such as employment training or nutrition assistance to people with or at risk for HIV. Such coordination helps to ensure that resources are allocated according to current burden of disease and that the most effective prevention and care strategies are tailored to local community needs to achieve maximal results.

Better coordination at the state, tribal, local, and territorial levels involves fostering strong linkages among community-based organizations, health departments, other public programs and services, education agencies, pharmacies, health care providers and systems, and community leaders. Collaboration with community partners is particularly important to developing locally relevant plans for providing testing, prevention, care, treatment, and supportive services, including those that engage people not yet reached by existing programs and services. Such linkages support development of creative, local interventions that allow for seamless delivery of culturally relevant services to address the myriad needs of people at any number of touchpoints across the public health, health care delivery, and social services systems. Collaboration also involves engaging and building capacity and competencies among partners and communities that are interested in providing HIV services but may not have had the opportunity or resources to do so. Expanded and strengthened partnerships can better

equip communities to respond swiftly and effectively to identified outbreaks of HIV, STIs, and/or viral hepatitis.

### **Strategies**

- 4.2.1 Focus resources including evidence-based and evidence-informed interventions in the geographic areas and priority populations disproportionately affected by HIV.
- 4.2.2 Enhance collaboration among local, state, tribal, national, and federal partners and the community to address policy and structural barriers that contribute to persistent HIV-related disparities and implement policies that foster improved health outcomes.
- 4.2.3 Coordinate across partners to quickly detect and respond to HIV outbreaks.
- 4.2.4 Support collaborations between community-based organizations, public health organizations, education agencies and schools, and health care delivery systems to provide linkage to and delivery of HIV testing, prevention, care, and treatment services as well as supportive services.

### ***Objective 4.3 Enhance the quality, accessibility, sharing, and use of data, including HIV prevention and care continuum and social determinants of health data***

High-quality data are essential to the increased coordination, integration, and seamless delivery of services that are required to end the HIV epidemic. The appropriate collection and use of data can inform efforts to focus prevention and testing services on populations who need them most, help ensure that people newly diagnosed with HIV are referred to care, and facilitate effective treatment to help people with HIV to achieve and maintain viral suppression.

Appropriate use of secure health information exchanges can help to engage and retain or reengage people in care and to facilitate transitions across care and community settings. Further, secure sharing of treatment and outcome data can drive the science needed to develop new and better treatments, approaches to retention in care, and prevention interventions. Better use of data on social determinants of health can optimize prevention efforts for at-risk groups, engage and retain people with HIV in care, support adherence to treatment, and inform ongoing research efforts to develop better treatment and prevention.

Since the last update to the HIV Plan, health information technology (health IT) has become even more widespread and interoperable, presenting numerous opportunities to enhance the availability and use of data to improve HIV prevention and treatment efforts.

### **Strategies**

- 4.3.1 Promote the collection, efficient sharing, and use of HIV risk, prevention, and care and treatment data using interoperable data standards, including data from electronic health records.
- 4.3.2 Use interoperable health information technology, including electronic health records and health information exchange networks, to improve HIV prevention efforts and care outcomes.

- 4.3.3 Encourage and support patient access to and use of individual health information, including patient-generated health information and consumer health technology.

***Objective 4.4 Identify, evaluate, and scale up best practices including through translational, implementation, and communication science research***

Many significant scientific advances and best practices have been discovered during the response to the HIV epidemic. However, to achieve an impact at the population level, these discoveries must be effectively, swiftly, and broadly disseminated and brought to scale through evidence-based and culturally responsive public health and clinical practice. Conducting implementation science research, in collaboration with communities, is one important approach to more rapidly and effectively put into practice new research findings, advances, and other tools as they become available.

Implementation science helps to identify factors that are barriers to or can help facilitate effective public health and health care services as well as informs related policy development. Knowledge of these factors can help entities successfully implement interventions with fidelity as well as support the discovery of new evidence-based practices and strategies that improve public health at all levels. For example, theoretically, the widespread provision of ART and PrEP could end the HIV pandemic. However, a gap exists between theory and reality. Implementation gaps exist at all stages of the HIV prevention and care continuums. Progress in cities such as San Francisco and New York City, which have dramatically reduced new HIV cases by deploying ART, PrEP, and other tools, suggests that these gaps can be overcome. Such examples offer lessons for optimizing implementation research in different settings and among various populations.

In addition to supporting implementation research, there is a need to develop more opportunities and mechanisms for timely information sharing and peer technical assistance to support replication of best practices and use of lessons learned to address common barriers within and across jurisdictions.

**Strategies**

- 4.4.1 Promote and support collaborative research efforts among academic centers, health departments, community-based organizations, patients and their advocates, and other partners that aim to discover, adapt, and scale up effective interventions to improve HIV outcomes.
- 4.4.2 Develop opportunities and mechanisms for information sharing and peer technical assistance within and across jurisdictions.

***Objective 4.5 Improve mechanisms to measure, monitor, evaluate, report, and disseminate progress toward achieving organizational, local, and national goals***

There is a continued need to streamline and harmonize data reporting to reduce reporting burden and facilitate more regular, timely, and useful data. Support is also needed to adopt new analytic methods and approaches to increase the timeliness of data, enhance the ability to characterize the burden of HIV across the nation, and use that information to allocate resources

to achieve the greatest impact. In addition, complementary data sources such as health care payer databases, surveys, and linkages to electronic health records are necessary to ensure robust information that can guide decision making.

Timely data will improve accountability among federally funded organizations as they set and make progress toward measurable goals and targets aligned with this Plan. Data for the indicators at the local, state, and national levels should be regularly and publicly reported and reviewed to identify successful efforts, indicate challenges, and facilitate ongoing dialogue about ways to continue moving forward. Such reporting and review require a monitoring plan that evaluates the implementation of the HIV Plan. A system of regular public reporting will help to sustain public attention and support at the national level. Organizations that struggle to engage new stakeholders or fall short of expected outcomes should receive intensive capacity-building assistance and other supportive measures as a condition of continued funding. The nation can thus direct its funds to entities and initiatives that demonstrate the highest level of performance and accountability for high-impact HIV prevention.

### **Strategies**

- 4.5.1 Streamline and harmonize reporting and data systems to reduce burden and improve the timeliness, availability, and usefulness of data.
- 4.5.2 Monitor, review, evaluate, and regularly communicate progress on the HIV National Strategic Plan.
- 4.5.3 Ensure that HIV National Strategic Plan goals are included in cross-sector federal funding requirements.
- 4.5.4 Strengthen monitoring and accountability for adherence to requirements, targets, and goals by funded partners.
- 4.5.5 Identify and address barriers and challenges that hinder achievement of goals by funded partners and other stakeholders.



### **III: IMPLEMENTATION AND ACCOUNTABILITY**

#### **A. Federal Partners**

The HIV Plan provides a framework for ending the HIV epidemic in the United States. Development of the HIV Plan was a collaborative process led by federal partners across multiple departments and agencies with input from a wide range of stakeholders from across the nation.

Federal partners will collaborate to develop an implementation plan to pursue the HIV Plan goals, objectives, and strategies. The federal implementation plan will set forth federal partners' commitments to policies, initiatives, and activities to meet the goals of the HIV Plan, and will be published for transparency and accountability. The federal implementation plan will also include details on the definitions, specifications, and targets for the indicators of progress.

As part of their ongoing commitment to reduce HIV in this nation, federal partners have committed to serve on an HIV Plan implementation working group. This implementation working group will collaborate on addressing HIV in an integrated fashion by including other infectious diseases as components of the syndemic. The working group will meet regularly to coordinate activities across agencies and departments, implement lessons learned from epidemiological data and research findings, monitor progress toward the indicator targets, course correct as needed, and report on national progress. As scientific, medical, and public health advances and challenges emerge, new and innovative policies will be developed to complement the existing HIV plan.

#### **B. Nonfederal Partners**

Addressing HIV is not solely a federal activity. Success depends on coordinated action by state, tribal, territorial, and local governments; community-based organizations and faith-based organizations; health plans, health care providers, and other health-related organizations; universities, schools, and other avenues for educational activities; researchers; families; and patients and their partners. Its success also depends on a holistic approach to the various parts of the syndemic, including STIs, viral hepatitis, substance use and mental health disorders, stigma and discrimination, and social and structural determinants of health.

Each community and stakeholder brings a unique perspective and plays a critical role in preventing and responding to HIV. Over the past several years many states and localities have engaged in community-wide efforts to develop their own plans to end the HIV epidemic. Stakeholders are encouraged to use this HIV Plan to engage with others and build or update their own roadmap to reduce HIV and end the HIV epidemic among the populations and communities they serve. Stakeholders should consider adopting the vision and goals of this HIV Plan; pursuing the objectives and implementing the strategies relevant to their role(s), populations served, and community circumstances; and identifying opportunities to adopt and use the Plan's indicators and targets to measure their own progress. In doing so, communities and stakeholders can also apply other evidence-based strategies appropriate for responding to HIV in their area and use all available data to identify where their resources and effort will have

the most impact. A data-driven strategy will help stakeholders focus efforts and efficiently and effectively use available resources. Integrating HIV testing, prevention, care, and treatment efforts with other components of the syndemic, including emerging issues such as the COVID-19 pandemic, is also strongly encouraged.

DRAFT

## **APPENDIX A: PROCESS/METHODOLOGY FOR DEVELOPING AND ADOPTING THE HIV PLAN**

In 2018, recognizing the importance of the then current NHAS, which expires in 2020, ADM Brett Giroir, MD, Assistant Secretary for Health at HHS, outlined a process for developing the next iteration of this HIV Plan in parallel with the Viral Hepatitis National Strategic Plan, which also expires in 2020.

The Office of Infectious Disease and HIV/AIDS Policy (OIDP), within the Office of the Assistant Secretary for Health at HHS, has facilitated development of this HIV Plan. OIDP has collaborated with partners from across many federal departments and agencies to compile the best available evidence and recommendations, solicited input from various external stakeholders, including the public, and integrated these various inputs into this HIV Plan to set the country on a path toward ending the HIV epidemic.

Concurrent development of the HIV Plan and the Hepatitis Plan has allowed for general alignment of their visions, goals, objectives, and strategies. These plans were developed by leveraging a common infrastructure, and they each aim to capitalize on synergistic opportunities to jointly address HIV and viral hepatitis. Nevertheless, despite this overlap, HIV and viral hepatitis each present unique public health challenges that justify releasing the two plans separately. These two plans have also been developed in partnership with development of the first-ever STI National Strategic Plan.

### **Federal Leadership**

#### **Steering Committee**

A joint HIV/viral hepatitis federal Steering Committee set the vision, goals, objectives, priority populations, and indicators to measure progress for the nation. In doing so, it identified and discussed key challenges to be addressed in both the HIV Plan and the Hepatitis Plan. The Steering Committee directed and oversaw the process of developing the HIV Plan; formed subcommittees to study and propose objectives, strategies, and indicators for each of the HIV Plan's goals; and reviewed both the subcommittees' recommendations and the information gathered during the public input period. Development of the objectives and strategies was an iterative process among the Steering Committee, the various subcommittees, and the committees developing the Hepatitis Plan and the STI Plan, as well as OIDP leadership. These contributors conducted analyses to identify gaps as well as opportunities for alignment within the HIV Plan and among all of the national strategic plans. The Steering Committee voted to approve components of the HIV Plan (e.g., vision, goals, objectives, indicators). The Steering Committee consisted of senior representatives from six federal departments and 12 HHS agencies and offices (see Table A.1). It met bimonthly, switching to monthly from January 2019 through February 2020.

**Table A.1.** Composition of Joint Viral Hepatitis/HIV Federal Steering Committee

Federal Departments and Agencies	HHS Agencies/Offices	
<ul style="list-style-type: none"> <li>• Department of Defense</li> <li>• Department of Justice</li> <li>• Equal Employment Opportunity Commission</li> <li>• Department of Health and Human Services (HHS)</li> <li>• Department of Housing and Urban Development</li> <li>• Department of Veterans Affairs</li> </ul>	<ul style="list-style-type: none"> <li>• Administration for Community Living</li> <li>• Agency for Healthcare Research and Quality</li> <li>• Centers for Disease Control and Prevention</li> <li>• Centers for Medicare &amp; Medicaid Services</li> <li>• Food and Drug Administration</li> <li>• Health Resources and Services Administration</li> <li>• Indian Health Service</li> </ul>	<ul style="list-style-type: none"> <li>• National Institutes of Health</li> <li>• Office of the Assistant Secretary for Health</li> <li>• Office for Civil Rights</li> <li>• Office of the National Coordinator for Health Information Technology</li> <li>• Substance Abuse and Mental Health Services Administration</li> </ul>

### Subcommittees

The Steering Committee formed three HIV subcommittees, one for each topic listed by the bullets below, and nominated subject matter experts from each agency or office to join them.

- Prevention and Care
- Disparities and Coordination
- Indicators

These subcommittees were charged with developing and recommending objectives, strategies, and indicators. Each had at least two co-chairs and consisted of subject matter experts from across the government. Subcommittees met at least monthly to review the latest science and evidence and to develop objectives and strategies for each goal, as well as indicators, for discussion and approval by the Steering Committee. The Indicators Subcommittee also coordinated with its counterparts for the next Hepatitis Plan and the inaugural STI Plan to aim for consistency of criteria and methods used across plans.

### Public Input

A crucial component in developing the HIV Plan was engagement and input from nonfederal stakeholders. Stakeholders from all sectors and at all levels (i.e., community, state, regional, national) and people whose lives have been affected by HIV were encouraged to provide input on the HIV Plan.

### Solicitation of Public Input

To assist in developing the HIV Plan, public input on the plan was solicited. Between September 2018 to March 2019, OIDP conducted 18 listening sessions at national conferences, state and regional community planning meetings, prevention trainings in rural areas, federal advisory

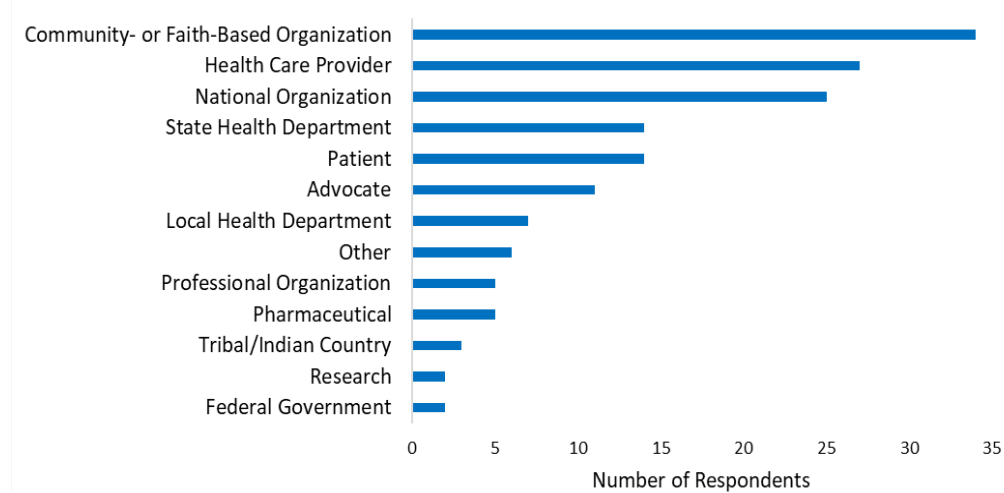
committees, and virtual meetings throughout the United States. Throughout this process, ODP received 312 listening session comments regarding the HIV Plan. In addition, a [Request for Information](#) (RFI) was published in the *Federal Register* during February 2019, which resulted in receipt of 49 written public comments on HIV. After de-duplication, ODP received a total of 344 comments from unique respondents.

## Method of Analysis

All verbal and written comments were collated by commenter and organization. A pre-determined coding structure was developed based on questions posed during the listening sessions and in the RFI. Two coders analyzed all comments and coded the comments to themes. Coders reviewed the comment data and updated the codebook based upon dominant and emergent themes present in both listening session and RFI comments. Staff performed a qualitative analysis of all comments using NVivo 12.0, examined them for dominant themes and subthemes, and matched them to HIV Plan goals.

## Commenters

A total of 155 commenters were identified and categorized into various respondent types. Overall, there was strong representation from community-based organizations/faith-based organizations (n=34), health care providers (n=27), national organizations (n=25), state health departments (n=34), and patients (n=14) (see Figure A.1).



**Figure A.1.** Respondent type for all public comments with available affiliation.

## Summary of Findings

Methods used and findings from the public input, including prominent themes and sub-themes along with supporting comments, were presented to the Steering Committee and the subcommittees. Input received through public comments was extremely valuable, and comments addressed a broad range of HIV-related topics that are reflected in the HIV Plan's objectives and strategies; dominant themes are listed in Table A.2.

**Table A.2.** Dominant Themes from Public Comments

Theme	Number of Comments (%) N=344
Priority Populations	156 (45.36%)
Coordination	113 (32.8%)
Social Determinants of Health	110 (32.0%)
Prevention	92 (26.7%)
Health Care Financing	77 (22.4%)
Funding	67 (19.5%)
Care	63 (18.3%)
Substance Use	41 (11.9%)
STIs	38 (11.0%)
Screening and Diagnostics	27 (7.8%)
Research	17 (4.9%)
Viral Hepatitis	16 (4.7%)

Many comments pertained to the work or purview of specific agencies. These agency-specific comments were also compiled into individual reports and shared with those agencies for review and consideration.

### Identification of Priority Populations Based on National-Level Data

The Indicators Subcommittee was tasked with identifying priority populations for the HIV Plan. Priority populations are disproportionately affected populations, which are defined as groups of people with a higher burden of disease than others. HIV testing, prevention, care, and treatment interventions and resources can be delivered to priority populations for the greatest impact. With the understanding that the HIV Plan is a national plan, the Steering Committee reviewed national HIV surveillance data to select priority populations.

As a starting point, CDC's Division of HIV/AIDS Prevention presented HIV surveillance data. The data considered included (1) incidence of new HIV infections including trends, (2) prevalence of HIV, (3) diagnoses, (4) results across major HIV outcomes, and (5) potential impact of other major public health threats (e.g., opioid epidemic, STDs). The subcommittee reviewed and discussed the data over several meetings and voted to recommend to the Steering Committee priority populations based on the available surveillance data.

Examination of the 2018 national-level data illustrated the disparate impact of HIV on the five groups designated as priority populations in the HIV Plan (see Table A.3):

- gay, bisexual, and other men who have sex with men (MSM), in particular Black, Latino, and American Indian/Alaska Native men;
- Black women;
- transgender women;
- youth aged 13–24 years; and
- people who inject drugs.

**Table A.3.** Priority Populations and Summary National-Level Data, Calendar Year 2018 (unless otherwise indicated)

<b>Gay, Bisexual, and Other MSM</b>
<ul style="list-style-type: none"> <li>• Gay, bisexual, and other men who have sex with men are the population most affected by HIV in the United States. At the end of 2018, an estimated 1.2 million people had HIV in the United States. Of those, 740,400 (61.7%) were gay and bisexual men.<sup>138</sup></li> <li>• In 2018, adult and adolescent gay and bisexual men represented 67% (24,400) of the 36,400 new HIV infections in the United States.<sup>139</sup></li> <li>• The incidence of many STDs in gay, bisexual, and other men who have sex with men—including primary and secondary syphilis and antimicrobial-resistant gonorrhea—is greater than that reported in women and men who have sex with women only.<sup>140</sup> Having another STD can greatly increase the chance of getting or transmitting HIV. Ten percent of new HIV infections among MSM are estimated to be attributable to gonorrhea and chlamydia, equating to 2,600 HIV infections each year.<sup>141</sup></li> </ul>
<b>African American/Black MSM</b>
<ul style="list-style-type: none"> <li>• African American/Black gay, bisexual, and other MSM are more affected by HIV than any other group in the United States.</li> <li>• In 2018, Black/African American gay and bisexual men accounted for 26% (9,400) of the 36,400 new HIV infections and 39% of new infections among all gay and bisexual men in the United States.<sup>142</sup></li> <li>• Of the 37,968 new HIV diagnoses in the United States and dependent areas in 2018, 26% were among Black/African American gay and bisexual men.</li> <li>• Along the HIV care continuum, compared to all people with diagnosed HIV in 41 states and the District of Columbia, Black/African American gay and bisexual men have lower viral suppression rates.<sup>143</sup> (See Figure A.2.)</li> </ul>
<b>Hispanic/Latino MSM</b>
<ul style="list-style-type: none"> <li>• Hispanic/Latino gay, bisexual, and other MSM are heavily affected by HIV. In 2018, adult and adolescent Hispanic/Latino gay and bisexual men comprised 22% (8,000) of the 36,400 new HIV infections in the United States and 33% among all gay and bisexual men in the United States.<sup>144</sup></li> <li>• Of the 37,968 new HIV diagnoses in the United States and dependent areas in 2018, 21% were among Hispanic/Latino gay and bisexual men.<sup>145</sup></li> </ul>
<b>Native American/Alaska Native MSM</b>
<ul style="list-style-type: none"> <li>• American Indian/Alaska Native MSM are disproportionately affected by HIV. In 2018, 63% (117/186) of diagnoses occurring among American Indian/Alaska Native people were among MSM.<sup>146</sup></li> <li>• HIV diagnoses among American Indian/Alaska Native gay and bisexual men increased 15% between 2014–2018, while diagnoses among gay and bisexual men of other races/ethnicities were either stable or declined.<sup>147</sup></li> </ul>
<b>African American/Black Heterosexual Women</b>



- Although data show a 22% decrease in new HIV infections among African American/Black women between 2010 and 2018, among all women in the United States, Black women account for the largest share of new HIV infections (3,800 or 57% in 2018).<sup>148,149</sup>
- The rate of new HIV infections among African American/Black women (21.3 per 100,000) is nearly 13 times as high as the rate among white women (1.7 per 100,000) and more than 4 times as high as the rate among Hispanics/Latinas (5.0 per 100,000).<sup>150</sup>

#### Transgender Women

- A 2019 systematic review and meta-analysis found that an estimated 14% of transgender women have HIV.<sup>151</sup>
- By race/ethnicity, an estimated 44% of African American/Black transgender women, 26% of Hispanic/Latina transgender women, and 7% of white transgender women have HIV.<sup>152</sup>
- Among the 3 million HIV testing events reported to CDC in 2017, the percentage of transgender people who received a new HIV diagnosis was three times the national average.<sup>153</sup>

#### Youth Aged 13–24

- In 2018, youth aged 13–24 accounted for 21% (7,891) of the 37,968 new HIV diagnoses in the United States and dependent areas. Most new HIV diagnoses among youth were among young gay and bisexual men.<sup>154</sup>
- Only 9% of high school students have been tested for HIV and therefore do not know their HIV status. Among male students who had sexual contact with other males, only 15% have ever been tested for HIV.<sup>155</sup>
- In 2018, youth with diagnosed HIV were also the least likely of any age group to be linked to care within 1 month of diagnosis (77.2%).<sup>156</sup> Further, compared to all people with HIV, youth have the lowest rates of viral suppression. For every 100 youth with HIV, 43 received some HIV care, 31 were retained in care, and 30 were virally suppressed.<sup>157</sup>
- People aged 15–24 account for approximately 50% of the 20 million new STIs in the United States each year, yet approximately 25% of the sexually active population.<sup>158</sup> Having another STI can greatly increase the chance of getting or transmitting HIV.

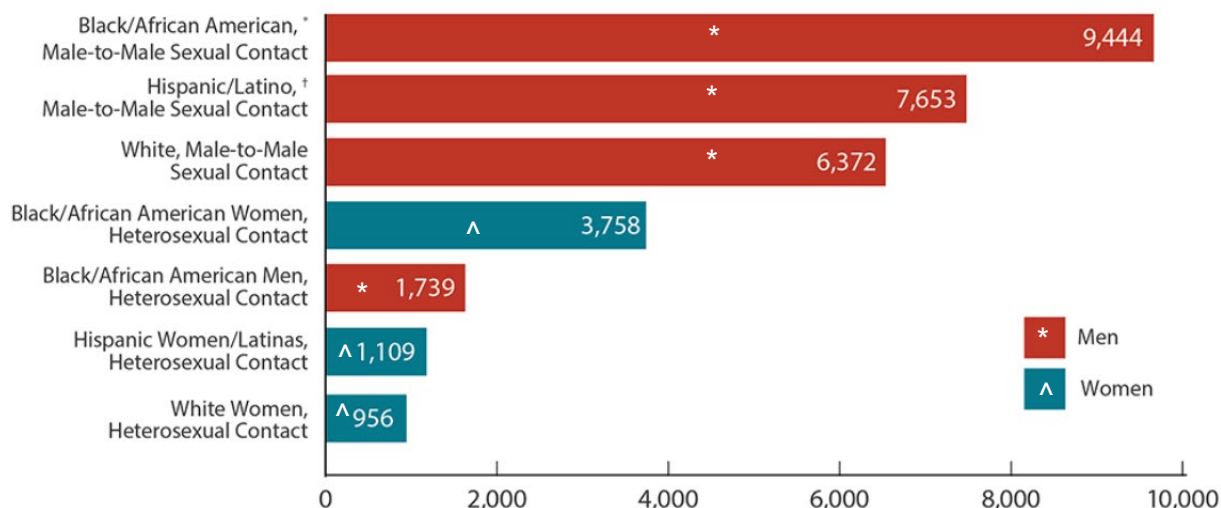
#### People Who Inject Drugs

- People who inject drugs are at high risk for getting HIV if they use and share needles, syringes, or other drug injection equipment that someone with HIV has used.
- New HIV diagnoses among people who inject drugs have increased 8.6% in recent years (from 2,294 diagnoses in 2014 to 2,492 diagnoses in 2018) in the 50 states and District of Columbia.<sup>159</sup>
- Although HIV incidence among people who inject drugs has declined substantially over many years, the ongoing misuse of opioids and other frequently injected substances are threatening this HIV prevention success. HIV diagnoses among people who inject drugs increased by 11% nationally from 2016 to 2018, with more pronounced increases among adults younger than age 40 and non-Hispanic White adults.<sup>160</sup> Multiple recent clusters and outbreaks have contributed to new HIV infections among people who inject drugs.<sup>161</sup>
- Among people with HIV who inject drugs, 62–81% were co-infected with hepatitis C.<sup>162</sup> People with HIV co-infected with hepatitis B or hepatitis C have higher liver-related



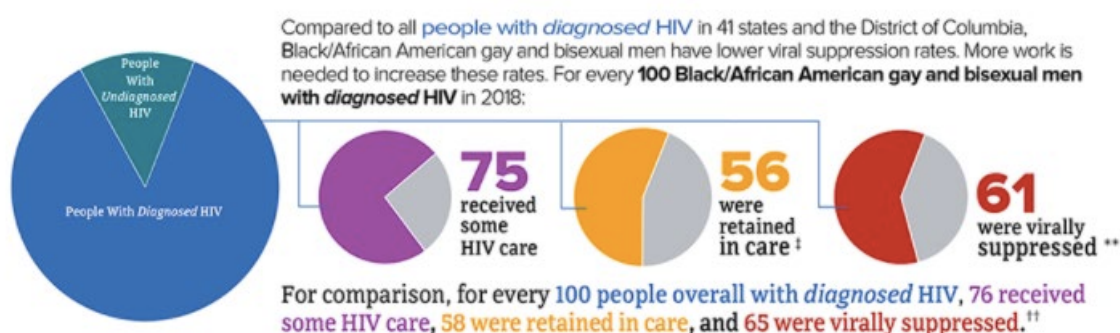
morbidity and mortality, and higher overall mortality than patients only infected with hepatitis B or hepatitis C.<sup>163,164,165</sup>

Figure A.2 depicts the subpopulations with the most new HIV diagnoses in 2018.



**Figure A.2.** New HIV diagnoses in the United States and dependent areas for the most-affected subpopulations, 2018. Notes: Black refers to people having origins in any of the Black racial groups of Africa. African American is a term often used for Americans of African descent with ancestry in North America. Hispanics/Latinos can be of any race. Subpopulations representing 2.0% or less of all people who received an HIV diagnosis in 2018 are not represented in this chart. Source: Centers for Disease Control and Prevention.<sup>166</sup>

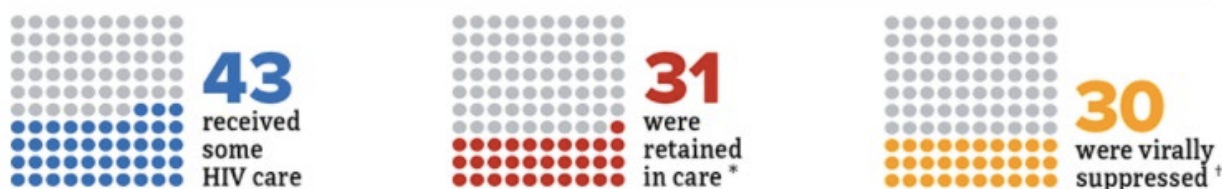
Figures A.3 and A.4 depict the disparities along the HIV care continuum experienced by Black gay, bisexual, and other men who have sex with men and youth aged 13–24.



**Figure A.3.** Disparities along the HIV care continuum among Black gay, bisexual, and other men who have sex with men, 2018. Notes: Black refers to people having origins in any of the Black racial groups of Africa. African American is a term often used for Americans of African descent with ancestry in North America. Includes infections attributed male-to-male sexual contact only. Among Black/African American men with HIV infection attributed to male-to-male sexual

contact and injection drug use, 94% knew they had HIV. Retained in care means individual had two viral load or CD4 tests at least 3 months apart in a year. Viral suppression based on most recent viral load test. Source: Centers for Disease Control and Prevention.<sup>167</sup>

Compared to all people with HIV, youth have the lowest rates of viral suppression. **For every 100 youth with HIV:**



For comparison, for every 100 people overall with HIV, 64 received some HIV care, 49 were retained in care, and 53 were virally suppressed.

**Figure A.4:** Disparities along the HIV care continuum among youth, aged 13–24, 2018. Source: Centers for Disease Control and Prevention.<sup>168</sup>

The Indicators Subcommittee was selective in the total number of priority populations so that limited resources and interventions can focus on a smaller number of populations to have the greatest impact on outcomes for the nation. It was also recognized that certain settings, such as jails and prisons, and geographical areas, including the South and some urban and rural areas, have populations disproportionately affected by HIV.

The HIV Plan recognizes the importance of providing HIV services to all populations with and at risk for HIV. Therefore, even though they were not designated as priority populations, the HIV Plan discusses the importance of addressing the unique needs of other groups, such as long-term survivors and older people with HIV or people experiencing unstable housing or homelessness.

### The Need to Address Social Determinants of Health and Priority Populations

Many populations disproportionately impacted by HIV have historically faced disparities in health status related to the social determinants of health, such as low-paying or inconsistent employment, unstable housing or homelessness, race/ethnicity, geographic location, or other characteristics historically linked to discrimination, stigma, or exclusion. Negative interactions with the health care or social services systems may decrease a person's likelihood of care-seeking behavior, making HIV testing, prevention, linkage to care, and adherence to treatment more difficult. This poses additional and unique challenges to the development of broad-based solutions. Focused efforts on social determinants of health are thus important to reduce the number of infections, morbidity, and mortality in these priority groups and to minimize disparities across the overall population.

#### Priority Populations May Differ by Stakeholder

The HIV Plan also highlights selected priority populations to illustrate how data may be used to help partners with limited resources to focus their efforts for the greatest public health impact.

The Plan's priority populations should be useful for federal and nonfederal partners whose purview reaches everyone in this nation. However, the groups most impacted by HIV may differ by jurisdiction or setting and may include additional or different populations or communities. Therefore, state, tribal, territorial, and local jurisdictions, as well as health care providers, health plans, community-based and faith-based organizations, advocacy groups, and other institutions should review data that pertain to the populations and communities they serve. This review will help each stakeholder determine how best to focus efforts and resources to achieve results with the highest impact.

## **Indicators of Progress**

The Steering Committee established an Indicators Subcommittee composed of federal agency representatives. The subcommittee was tasked with developing recommendations for a small set of core indicators to measure progress toward achieving HIV Plan goals. The subcommittee incorporated as core indicators the six indicators already being used to monitor the EHE initiative and identified two other core indicators relevant to the broader scope of the HIV Plan. The subcommittee also identified a core indicator that should be stratified by the HIV Plan's priority population to serve as disparity indicators. Additional information about the methodology used, indicator specifications, and indicator targets will be provided as part of the Federal Implementation Plan.

## **APPENDIX B: FEDERAL STEERING COMMITTEE, SUBCOMMITTEES, AND STAFF**

Development and preparation of this HIV National Strategic Plan was led by the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Health through the Office of Infectious Disease and HIV/AIDS Policy.

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## APPENDIX C: ACRONYMS

ACL	Administration for Community Living (HHS)
AHRQ	Agency for Healthcare Research and Quality (HHS)
AIDS	acquired immune deficiency syndrome
ART	antiretroviral therapy
BOP	U.S. Federal Bureau of Prisons
CCSQ	Center for Clinical Standards and Quality (CMS)
CDC	Centers for Disease Control and Prevention (HHS)
CEPI	Center for Evidence and Practice Improvement (AHRQ)
CMMI	Center for Medicare and Medicaid Innovation (CMS)
CMS	Centers for Medicare & Medicare Services (HHS)
COVID-19	coronavirus disease 2019
CPD	Office of Community Planning and Development (HUD)
CSAT	Center for Substance Abuse Treatment (SAMHSA)
DAIDS	Division of AIDS (NIAID)
DASH	Division of Adolescent and School Health (CDC)
DHAP	Division of HIV/AIDS Prevention (CDC)
DoD	U.S. Department of Defense
DOJ	U.S. Department of Justice
EHE	Ending the HIV Epidemic: A Plan for America
FDA	Food and Drug Administration (HHS)
HAB	HIV/Aids Bureau (HRSA)
HHS	U.S. Department of Health and Human Services
HIV	human immunodeficiency virus
HOPWA	Housing Opportunities for Persons With AIDS
HRSA	Health Resources and Services Administration (HHS)
HUD	U.S. Department of Housing and Urban Development
IHS	Indian Health Service (HHS)
IPV	intimate partner violence
MSM	men who have sex with men
NHAS	National HIV/AIDS Strategy
NHSS	National HIV Surveillance System (CDC)
NIAID	National Institute of Allergy and Infectious Diseases (NIH)
NIDDK	National Institute of Diabetes and Digestive and Kidney Diseases (NIH)
NIH	National Institutes of Health
OAR	Office of Aids Research (NIH)

OASH	Office of the Assistant Secretary for Health (HHS)
OCR	Office for Civil Rights (HHS)
OHH	Office of HIV/AIDS Housing (HUD)
OIDP	Office of Infectious Disease and HIV/AIDS Policy (HHS)
OSG	Office of the Surgeon General (HHS)
PEP	post-exposure prophylaxis
PrEP	pre-exposure prophylaxis
RWHAP	Ryan White HIV/AIDS Program (HRSA)
SAMHSA	Substance Abuse and Mental Health Services Administration (HHS)
SARS-CoV-2	severe acute respiratory syndrome coronavirus 2
SSP	syringe services program
STD	sexually transmitted disease
STI	sexually transmitted infection
U=U	Undetectable = Untransmittable
USPSTF	U.S. Preventative Services Task Force
VA	U.S. Department of Veterans Affairs

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